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On the cover: Get weaving! Treenway Silks' Salt Spring Island hand-dyed bombyx top in Rainbow Trout, rigid heddle inspired by a Viking-era find by the Dancing Goats. Learn more on page 54.
Photo by Matt Graves

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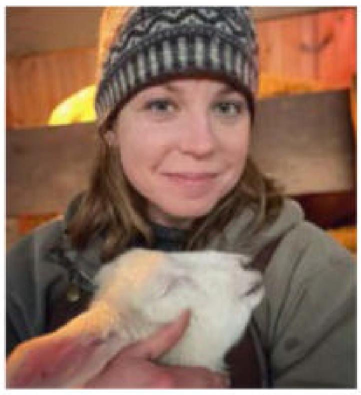

As this third annual color issue has developed, I've often had artist-educator Josef Albers on my mind. Albers has had a profound impact on how I think about and use color in my fiber life and beyond. His writings on what he describes as the "relativity and instability of color" urge us to see the interdependence of color, how colors interact when placed together. Have you ever had a plan for a project that seemed like a grand idea . . . until you got started?

In the introduction to his book *Interaction of Color*, Albers explains that this resource "does not follow an academic conception of 'theory and practice.' It reverses this order and places practice before theory, which, after all, is the conclusion of practice." This is everything! Albers is encouraging all of us to just dig in. Whether you consider yourself an artist "doing the work" or a maker who loves permission to play, the best way to learn about color is through practice.

As spinners, knitters, weavers, and more, how exactly do we create a color practice? This Color Scheme issue is packed with the voices of fellow makers doing the work. **Susan Z. Douglas** walks us through her approach to quickly building a stash of hand-dyed handspun and shares a cool swatch so you can quickly cast on your own color study. Hand-dyed speckle yarns inspired **Joanna Johnson** to try adding streaks and striations of color to her handspun, resulting in a must-have hat.

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Artist **Julia R. Gomez** shares the history of colcha embroidery, traditionally created with a palette of vibrantly dyed Churro, and **Dr. Annamarie Hatcher** offers an introduction to the science of scouring and dyeing. Whether you dye your own fibers or select from the abundance of ready-to-spin colorways on the market, I hope this issue inspires your handspun hues this spring!

Wishing you peace and perfectly filled bobbins,

Kate

Handspun colcha embroidery by Julia R. Gomez. See page 76.

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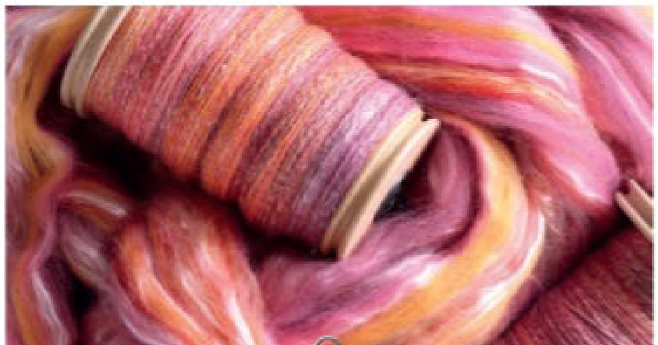

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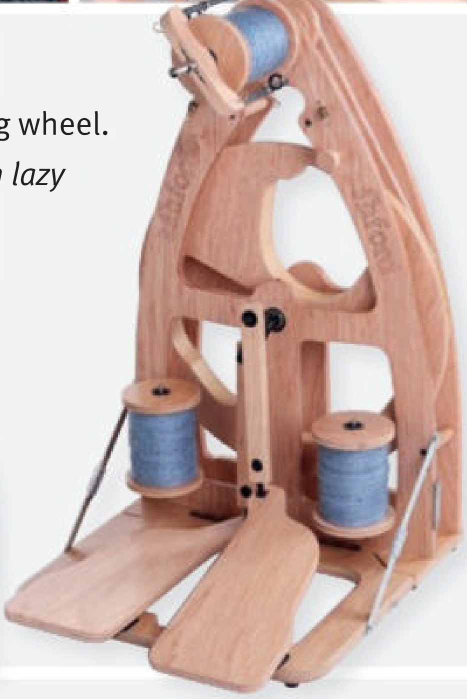

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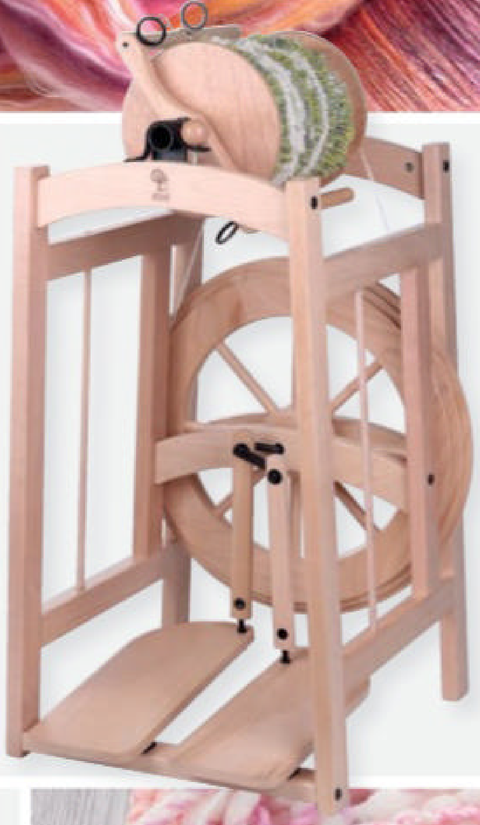

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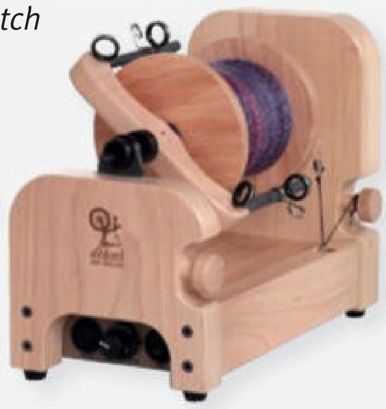

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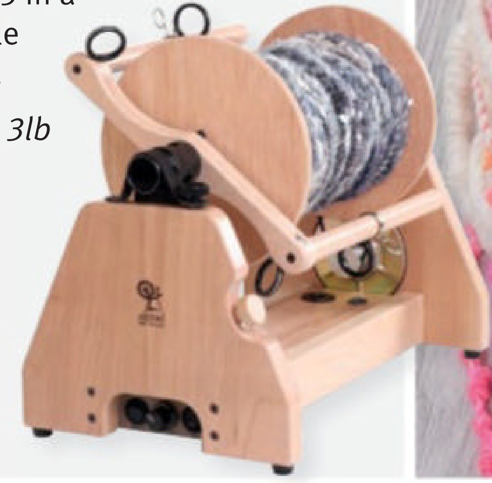

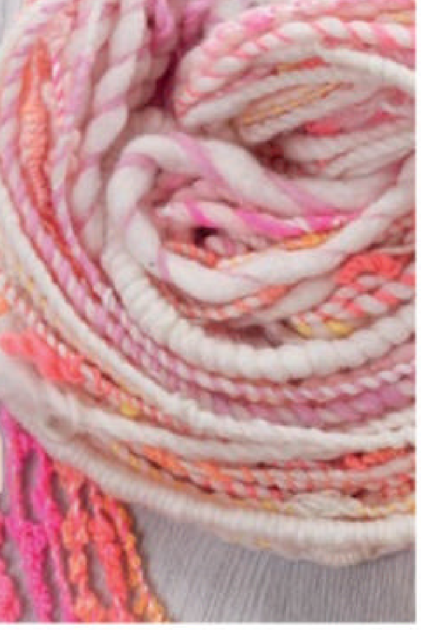

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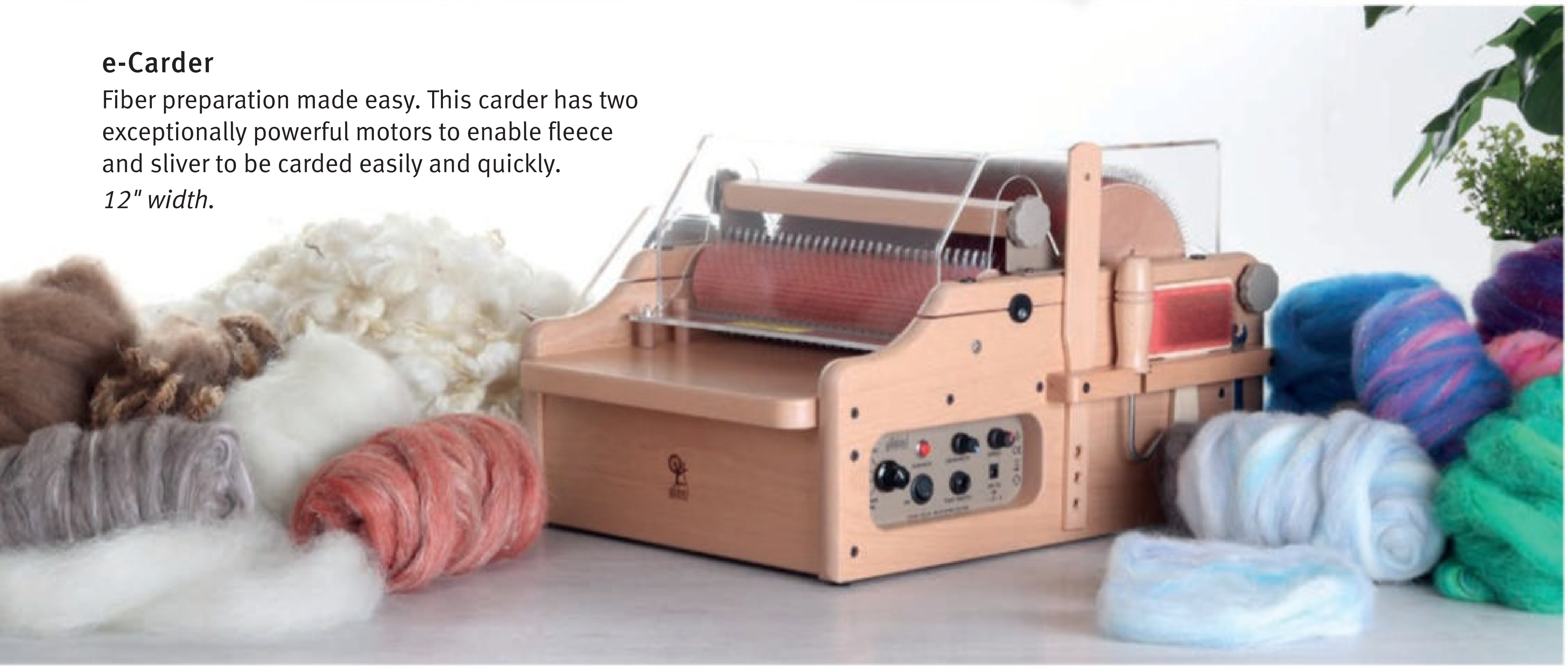

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Back to the Iron Age

Editor's Note: *Berna wrote a great article for* Spin Off *Winter 2023 about her experience re-creating and reenvisioning a precious scrap of ancient woven fabric discovered in Austria's Hallstatt salt mines. She sent us this update about her work since writing the article.*

MY OBSESSION WITH WEAVING FABRICS inspired by the Hallstatt Iron Age fragment has developed to the point that I've actually now handspun and woven four of them. While my original shawl was with you at *Spin Off,* I used the *zanshiori* technique to tie all the thrums together and weave another shawl with similar stripe and twill patterns.

I then realized that my original shawl didn't have the double stripe in the weft, so I spun more green and purple and wove a third shawl. But that one didn't look enough like the original fragment (shown on the cover of Elizabeth Barber's *Prehistoric Textiles*), so I spun more green and brown and wove a fourth shawl that looks more like the 3,000-year-old fabric found in the Hallstatt salt mines. I love them all. It makes me wonder what variations the Hallstatt weavers wove.

—Berna Lowenstein

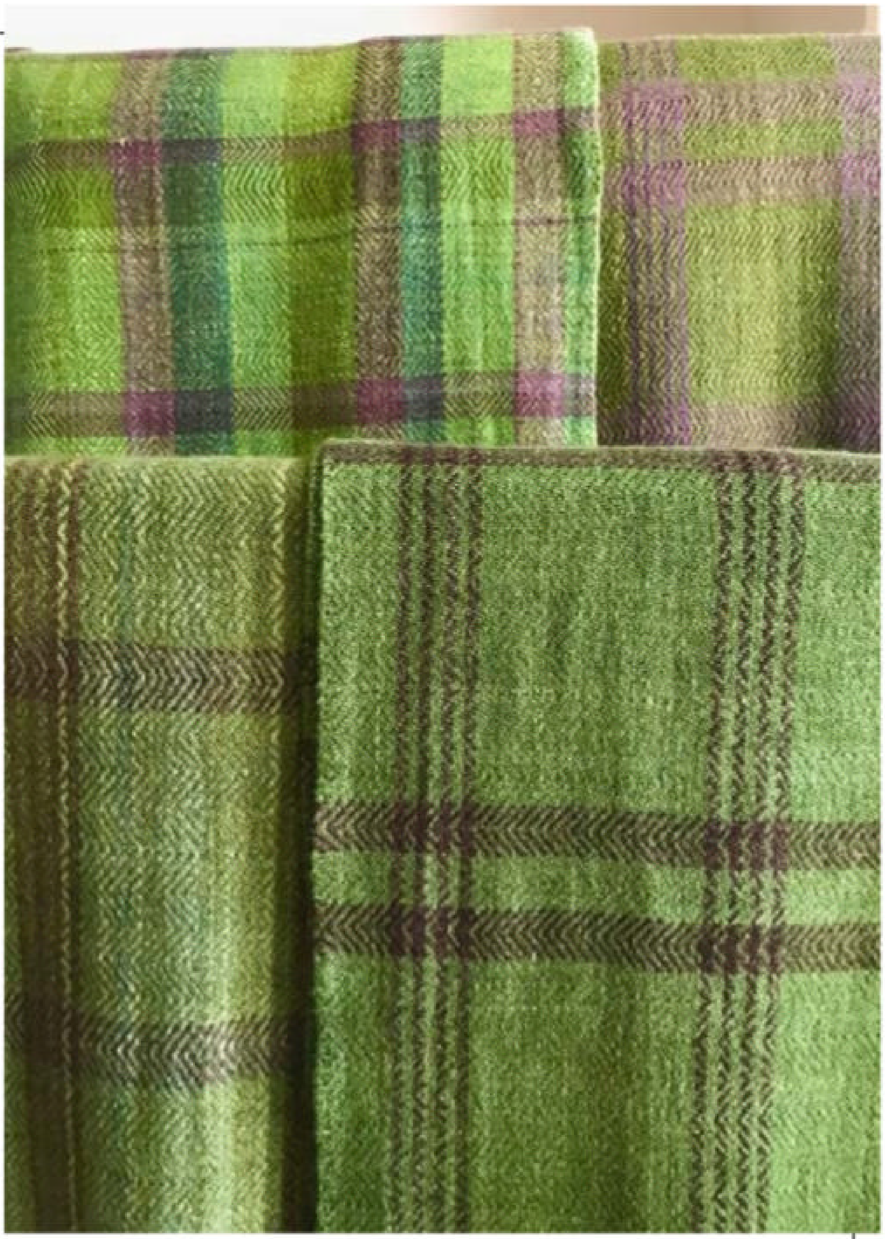

Photo by Berna Lowenstein

Clockwise from bottom left: **First shawl, second *zanshiori* shawl, third purple shawl, and fourth shawl that is closest to the original inspiration**

Card-Carrying Spinners

I'M A VERY CLUTTERED PERSON by nature and this reached a tipping point last summer when I adopted two kittens. When I saw the article about the card covers ("The Handy Dandy Denim Card Cover" by Susan Bradshaw) in *Spin Off* Fall 2022, it was obviously a sign to solve two problems at once: use up the scraps of old jeans in my fabric collection and have a way to keep my carders tidy!

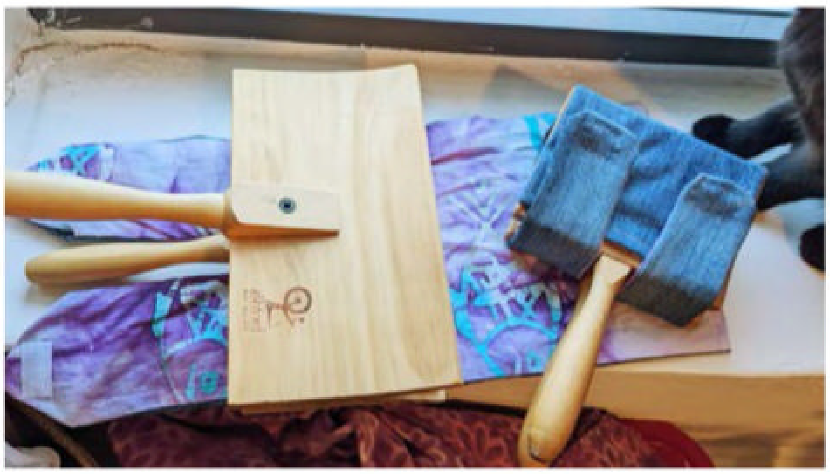

Photo courtesy of Amanda Bryman

The jeans weren't exactly hardwearing, so instead of using them as the sole source of fabric, I decided to line them with other fabric scraps. I'm not the best at sewing, but with my mother's help (who's an excellent seamstress), we adapted the instructions into a lined pattern. I used her sewing machine to speed up the process and then handsewed the squares of Velcro.

They're a little short on the edges, and I'd probably cut the fabric a little bigger next time. That said, I love how they came out! The contrast of the two fabrics is really pretty, and the nice thing about the project as a whole is that it allows for wiggle room in the finished size, which is a serious plus for someone like me who'd rather be spinning than sewing! **—Amanda Bryman**

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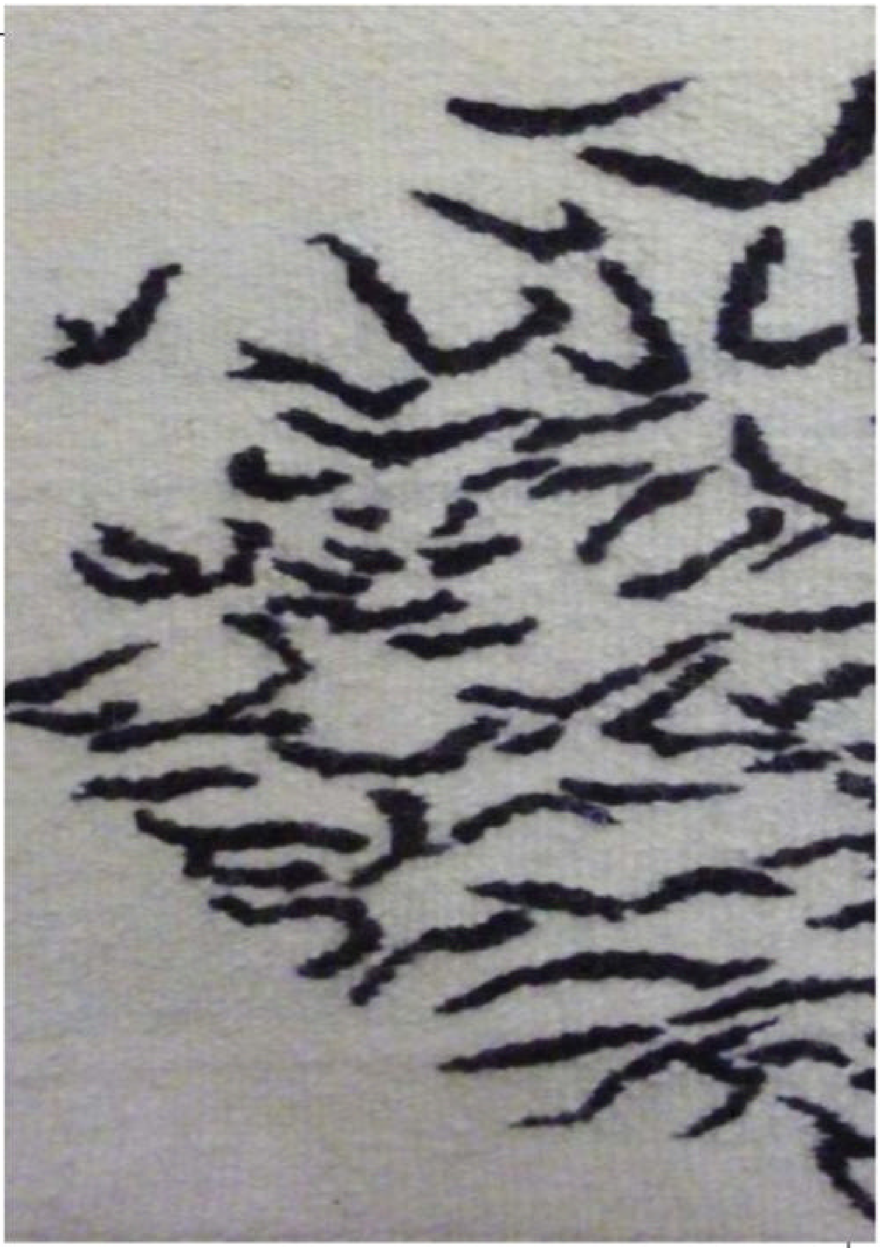
The Likeness of a Lichen

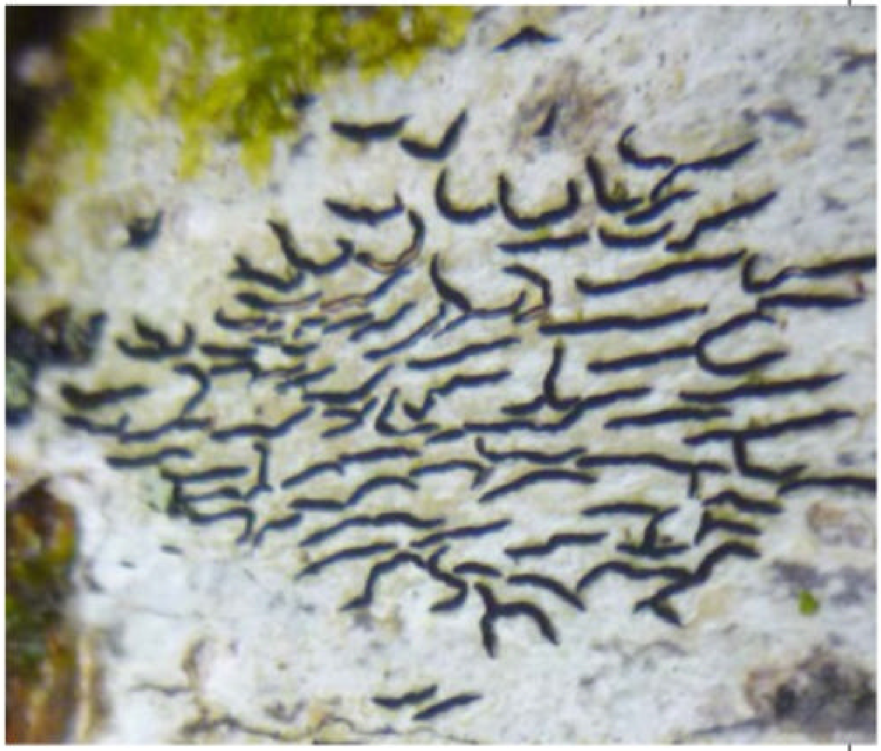
THE DESIGN FOR THIS TAPESTRY is based on a photo I took of a lichen (*Graphis scripta*) growing on a tree trunk. The tapestry measures 21 × 30 inches, but the lichen was only an inch or two across. I've become fascinated by lichens in the last few years, since I've been living on the edge of Dartmoor in Devon, southwest England; here they are plentiful and come in an amazing variety of forms and patterns. I've also done paintings and other artwork inspired by them.

The tapestry is made of local wool: black from Hebridean-cross sheep from a nearby farm, where they have many rare breeds, and white from a friend of a friend's pet sheep. I don't have my own spinning wheel, but I go to a spinning and weaving group at an over-60s activity club in the nearby town of Bovey Tracey where they have a wheel, several looms, and other equipment. The black wool came out thicker than the white when I'd spun it, so I plied the white to even out the thickness.

—Clare Benson



Clare's handspun tapestry inspired by the lichen below



Left: Local sheep in Devon. *Right: Graphis scripta* lichens

Photos courtesy of Clare Benson

Have you been inspired by *Spin Off*, your fiber fellows, or makers of the past? We would love to hear from you! Share your work with us at **spinoff@longthreadmedia.com**.

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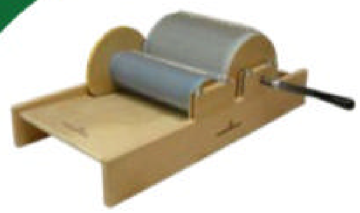

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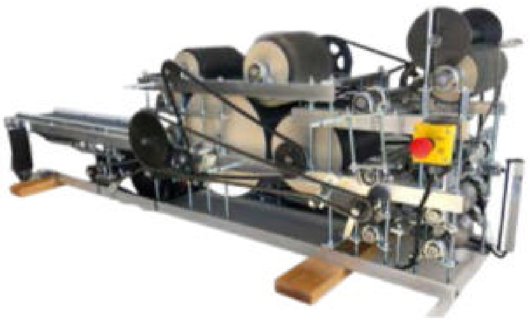

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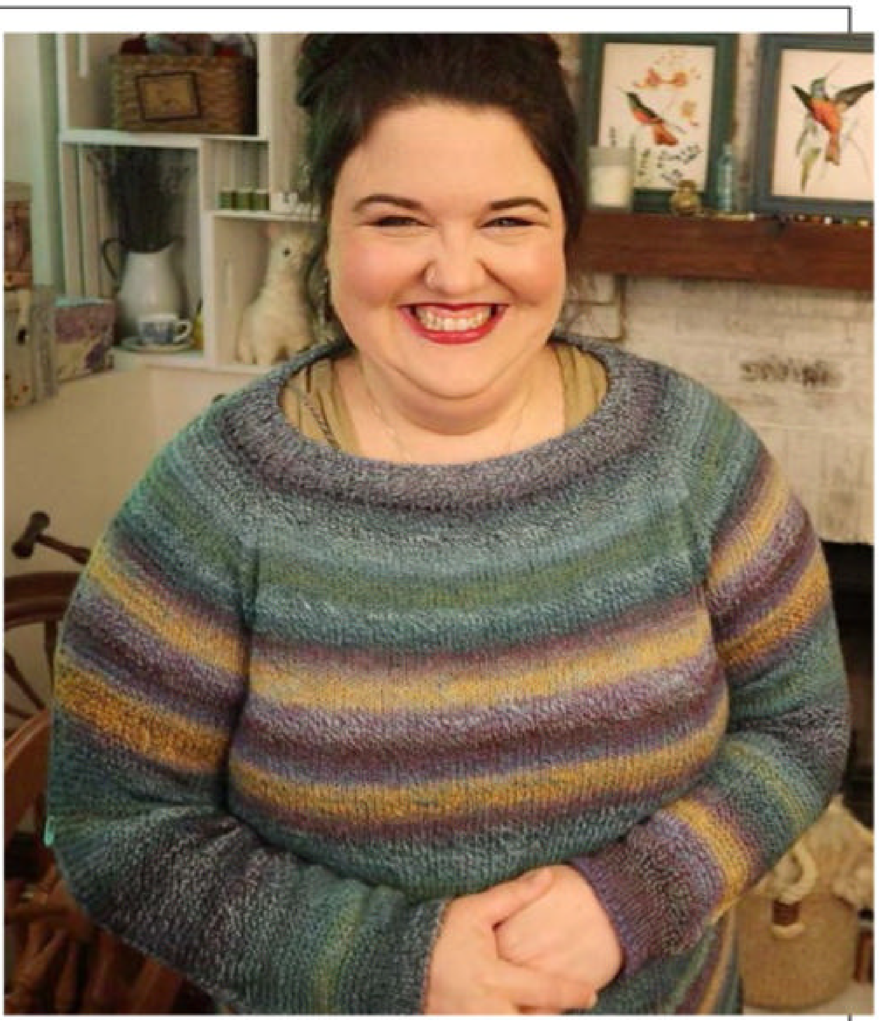
Controlling Color in a Handspun Sweater

EVA JILLIAN SCHWARTZ



Photos courtesy of JillianEve Fiber Art

Pattern and designer Flax from Tin Can Knits.
Fiber Three Waters Farm Out of the Spotlight and Radiant Greens on Polwarth/silk.
Fiber/preparation Combed top.
Wheel system/spindle Ashford Elizabeth 1 in double drive.
Ratio 15:1.
Drafting method Short-forward draw, worsted.
Singles direction Z-twist.
Singles wraps per inch 30.
Ply wraps per inch 14.
Yards per pound 1,330.
Total yardage 2,000 yards.
Yardage used 1,188 yards.
Yarn classification/weight Light worsted.
Needles Prym Ergonomics Size 8 (5 mm).
Finished size XXL.

This sweater tested my planning and organization from the very start, and I loved every challenging stitch of it! Handpainted combed top is fun to spin. The progression of bold colors keeps the spin interesting, and there are so many gorgeous colorways to explore. However, I don't always enjoy how the colors look after knitting the fabric. For this project, I wanted to create a sweater from handpainted top, while controlling where the colors would end up in the finished project.

Some of my specific sweater-color goals included placing the brightest colors across the upper body, matching that bright color across the top of the sleeves, and having the sleeves match each other all the way down to the cuffs. In the end, I achieved two of those goals.

The pattern I used was Flax from Tin Can Knits. I chose it because it has a simple top-down construction that I knew would help me with the color control across the chest and upper sleeves. I also knew that knitted stockinette in the round and this pattern's simple garter-stitch sleeve panels would let the color be the star of the show.

I wanted to create a sweater from handpainted top, while controlling where the colors would end up in the finished project.

After all the effort to manage the colors, I wanted to make sure I would have a sweater that would get a lot of wear. I chose a Polwarth/silk blend for the spinning fiber because it has a great balance of bounce and drape. I knew that, in the end, I would have a soft, warm sweater that wears well.

One of the things I wanted to avoid was blocky stripes of color. I wanted the color palette to have a cohesiveness that would fade one color into another with gentle transitions. I achieved this effect with two-ply construction. Both colorways came from Three Waters Farm. One strand was a brightly colored handpainted combed top called Out of the Spotlight. For the second ply, I chose Radiant Greens, a blue-green tonal combed top that gave the overall look of the sweater a beautiful, glazed color effect.

I'm very happy with how it all turned out. The bright orange-gold stripe across the top of the sweater body and sleeves is my favorite part of this project. However, even with all my careful planning and consistent spinning, I still ended up with some mismatched colors at the bottom of the sleeves. I think it is a good reminder to me that this is not a machine-made, "perfect" sweater. I have enough extra yarn that I could rip back one of the sleeves and adjust it to match the other, and I seriously considered doing that. In the end, I decided to keep them mismatched because I like to have a touch of whimsy in my wardrobe. ●

You can see the full details of how Evie planned, spun, and knitted this sweater on her YouTube channel, JillianEve, at youtu.be/UZL-R5vA8cM.

Eva Jillian Schwartz, aka Evie, is the creator of JillianEve Fiber Art, where she shares her passion for spinning, using handspun yarn, exploring textile history, and teaching spinning lessons.

Have a finished object to share? Tell us about it! Contact **spinoff@longthreadmedia.com** to submit your project.

Poofy Polwarth/silk braids from Three Waters Farm

Garter-stitch panel down the sleeve

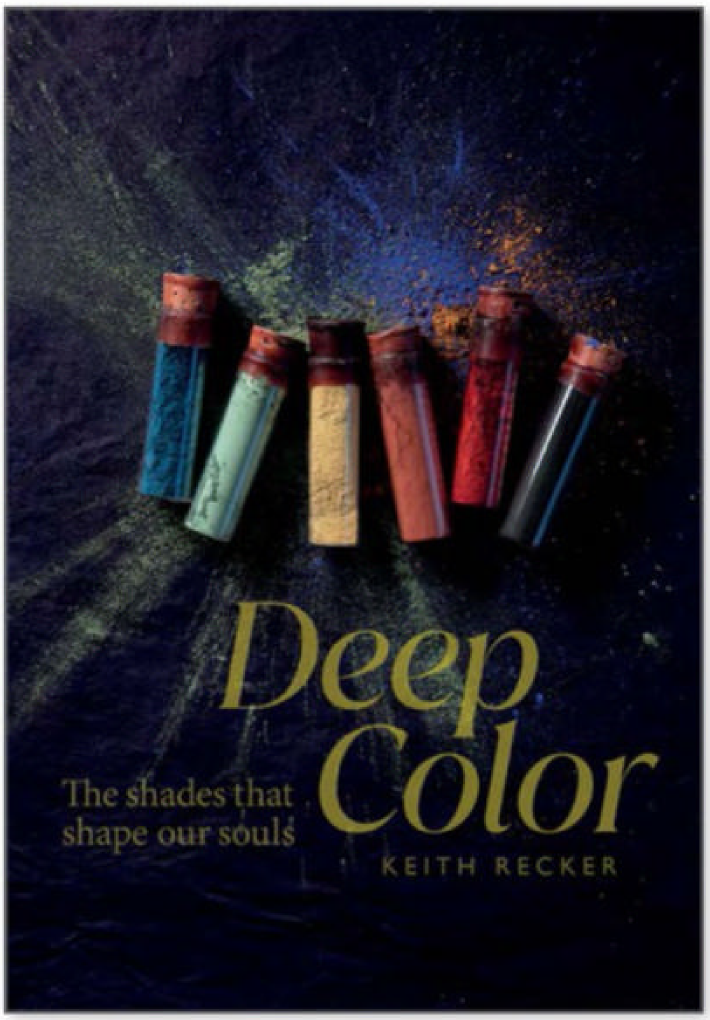
Ashford Elizabeth 1 set for double drive

REVIEW BY TERRY MATTISON

Deep Color:

The Shades That Shape Our Souls

by Keith Recker



Atglen, Pennsylvania: Schiffer, 2022. Hardcover, 384 pages. ISBN 9780764364419.

THIS IS A GORGEOUS BOOK, cover to cover, and a must-have for anyone whose work focuses on color. The photographs and graphics are vivid and beautifully presented, spilling out to cover the entire page. This is not a how-to dye book but rather an incredible journey through the fascinating world of color—a journey that is not limited to a North American or European scope but is a worldwide view. This is an important approach because colors and palettes were mostly geographically specific in the days before synthetic dyes.

We are surrounded by color—it has shaped our world in so many ways. *Deep Color* takes a deep dive into the history of color and how it has affected our world. From the European Venus of Willendorf to the Māori legend of the ochre-eating woman, the stories, legends, and symbolism will persuade you to view color with a new appreciation. The history discussed here is both ancient and quite recent.

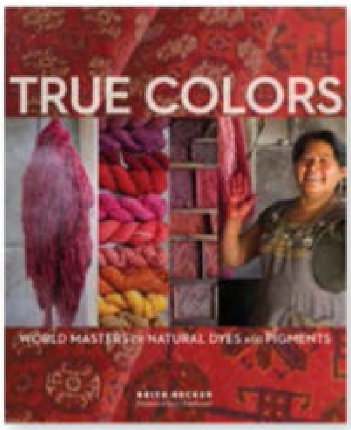
Color is a form of communication. It signifies different messages to different cultures, and at times, different generations. Have you thought about why you are drawn to certain colors while eschewing others? Color can generate visceral emotional reactions or contain special memories, much the way music can. It's fun to walk about a fiber festival and observe spinners with their bags or arms full of dyed spinning fiber. Often the colors in the fiber braids match what the spinner is wearing! Color can also be a statement—either obvious or subversive—or a message or a protest (remember those pink Pussyhats?).

I wonder how many natural dyers realize they have much in common with Old World painters such as Rembrandt and Vermeer? Artists having been using weld for centuries!

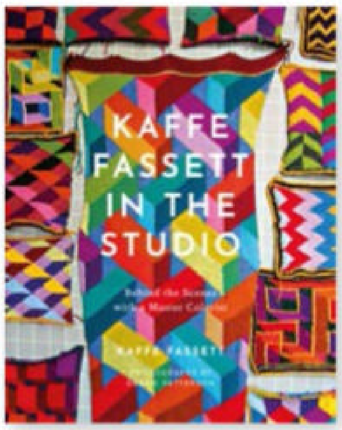
We, as spinners, weavers, and makers, have a multitude of choices—far more than those who came before us. We have a full palette of glorious color at our disposal. There are many talented dyers who provide us with a plethora of colored fibers to work with. What colors will you choose for your next project? Will you fall in love with one of the legends within this book and choose your next palette accordingly? Or will you create your next piece to make a statement, perhaps only for yourself?

Reading *Deep Color* has shown me how color has shaped our world, and for me, has been an enjoyable, educational, and inspirational journey. What an amazing book!

Reading List



True Colors: *World Masters of Natural Dyes and Pigments*
Keith Recker
Loveland, CO: Thrums Books, 2019.



Kaffe Fassett in the Studio: *Behind the Scenes with a Master Colorist*
Kaffe Fassett
New York: Abrams, 2021.

Dyeing RESOURCES

Looking for products and partners you can count on for dyes and dye products. We've rounded up a few for you. You'll find more information on their websites, too. Enjoy!

ASHFORD DYES
for all protein fibres
ashford dye

Photo courtesy of Ashford

Protein Dye 12 Pack from Ashford ⊛

Ashford dyes are for all protein fibers. They are easy to use, safe and comply with Oeko-Tex Standard 100. The colors are clean and vibrant and very economic. Because they are 100-percent concentrate you only need 10gm to dye 1kg of fiber. Use white vinegar to fix the dyes. Have fun creating your own colors. Available from your local Ashford dealer. Visit **www.ashford.co.nz/where-to-buy**.

Photo courtesy of Dharma

⊛ **Spin Up a Rainbow with Dharma Dyes and Fibers**

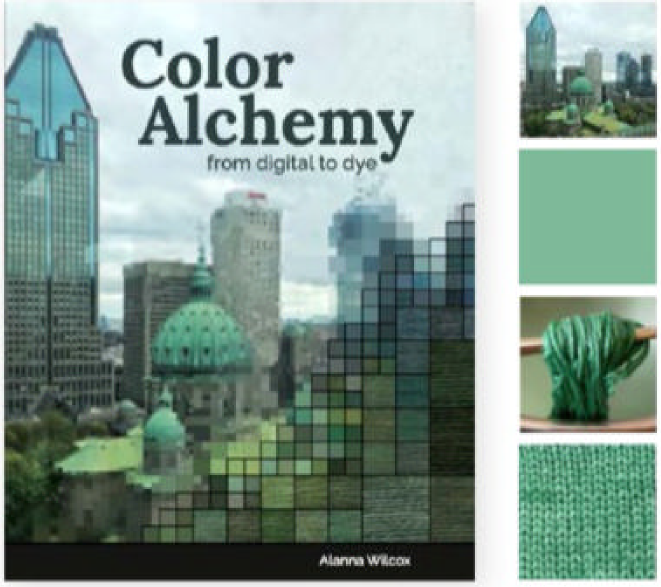
No color in the rainbow is out of reach when Dharma Acid Dyes come in 86 brilliant, mouth-watering, and permanent colors. Dyeing wool, alpaca, silk, mohair, yak, llama, and more is as easy as boiling water. Create unique colorways to spin up into the yarn of your dreams with professional results that will last. You can use these dyes in a wide variety of creative techniques including solid color dyeing, microwaving, solar dyeing, printing, spraying, painting, squirting, and steaming to create your one-of-a-kind fibers and yarns. Visit **www.dharmatrading.com** or call 800-542-5227.

Natural Dye Starter Kit
W

Photo courtesy of The Woolery

The Natural Dye Starter Kit from The Woolery ⊛

The Woolery's Natural Dye Starter Kit is complete with all the dyes, mordant, brighteners, reducing agents and instructions needed for natural dyeing! Dyes include Osage orange, walnut hulls, ground indigo, and more. Visit **www.woolery.com/natural-dye-starter-kit.html** for more information and to order your kit.



Photos courtesy of Alanna Wilcox

⊛ **Color Alchemy Masterclass with Alanna Wilcox**

Go from color inspiration to color application effortlessly with the ultimate color theory and dyeing course. Join Alanna Wilcox who offers a unique, in-depth, and supportive online learning experience where you will learn how to match colors quickly with synthetic dyes; curate color palettes using digital applications and photos; organize your dye notes for consistency and repeatability; and easily troubleshoot dye color outcomes. You'll find this course plus more spinning & dyeing workshops, books, and great resources at **www.alannawilcox.com**.

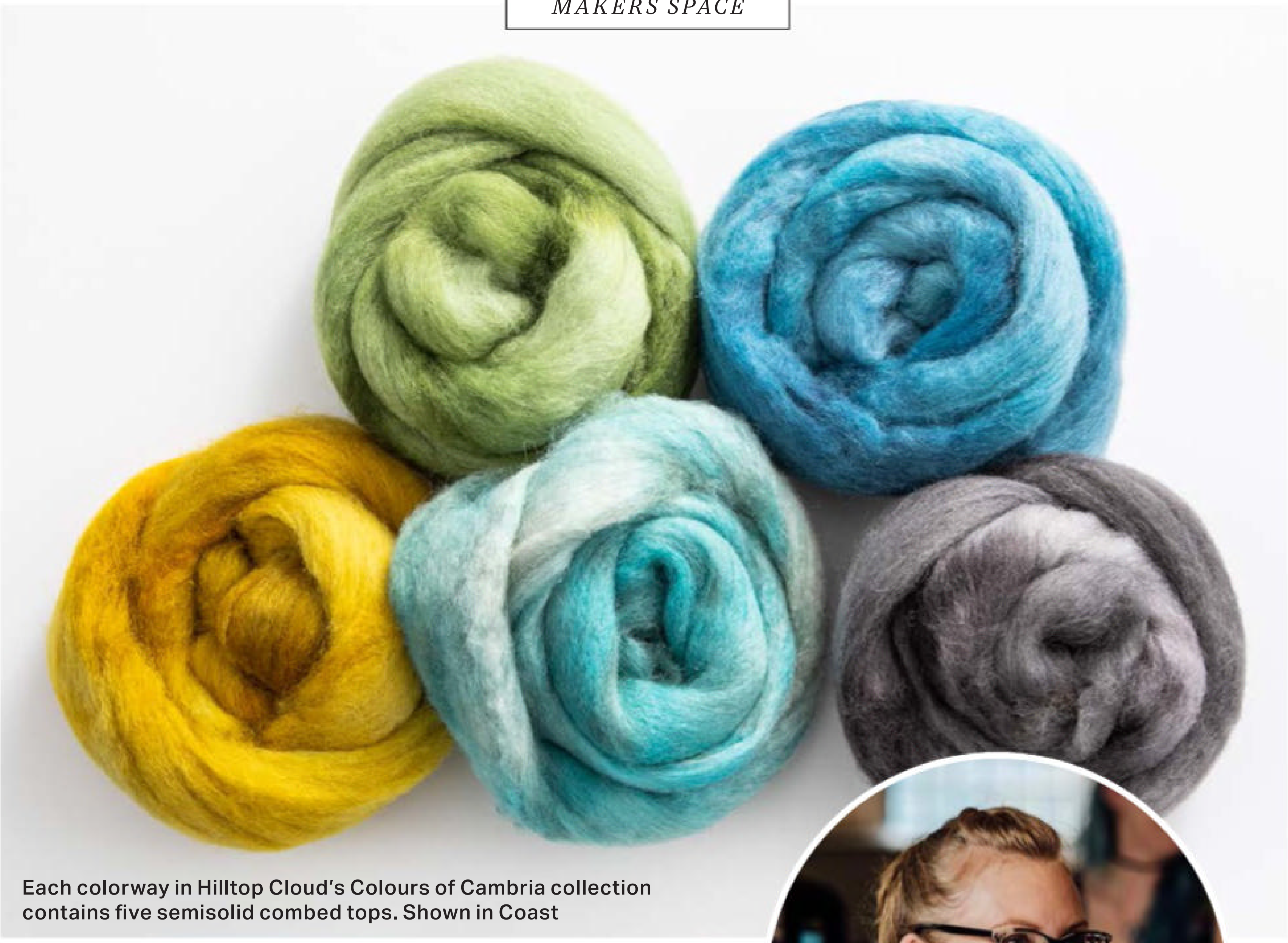


Photo by Matt Graves

Each colorway in Hilltop Cloud's Colours of Cambria collection contains five semisolid combed tops. Shown in Coast

Katie Weston

Photos courtesy of Katie Weston unless otherwise noted

Katie Weston

Dyer and Owner of Hilltop Cloud

WALES, UNITED KINGDOM

How did you get into your craft?

I first taught myself to knit in my early twenties. I got involved in the online world and expressed an interest in spinning. In an incredible act of generosity, someone gifted me an Ashford Traveller, and I taught myself to spin.

How did you shift from hobby to business?

When I left my job as a science teacher, I decided to see if I could start up a business. I'd been using a hairpick hackle to create blends for myself, so I started making more and selling them on Etsy. Later that year, I was gifted a drumcarder for my birthday and then started selling batts. After a couple of years, I ventured into dyeing, and 11 years later, I'm still busy creating beautiful spinning fiber as a full-time job.

What would you like us to know about your work?

I'm a spinning teacher as well as a dyer. That means I really know my fiber. Everything that I stock, I know how to spin in different ways and will have experimented with before it goes on sale. I host a free online community and give out loads of advice on becoming a better spinner and getting the most from a particular fiber.

Nearly everything that I dye is a one-off colorway. I rarely use recipes; instead, I dye by feel and instinct, improvising as I go along. It keeps my colors fresh and interesting and means I stay really engaged in my work. Similar themes and combinations do pop up, but they're never exact replicas.

What are your plans for the future?

By the time this article comes out, I'll have just

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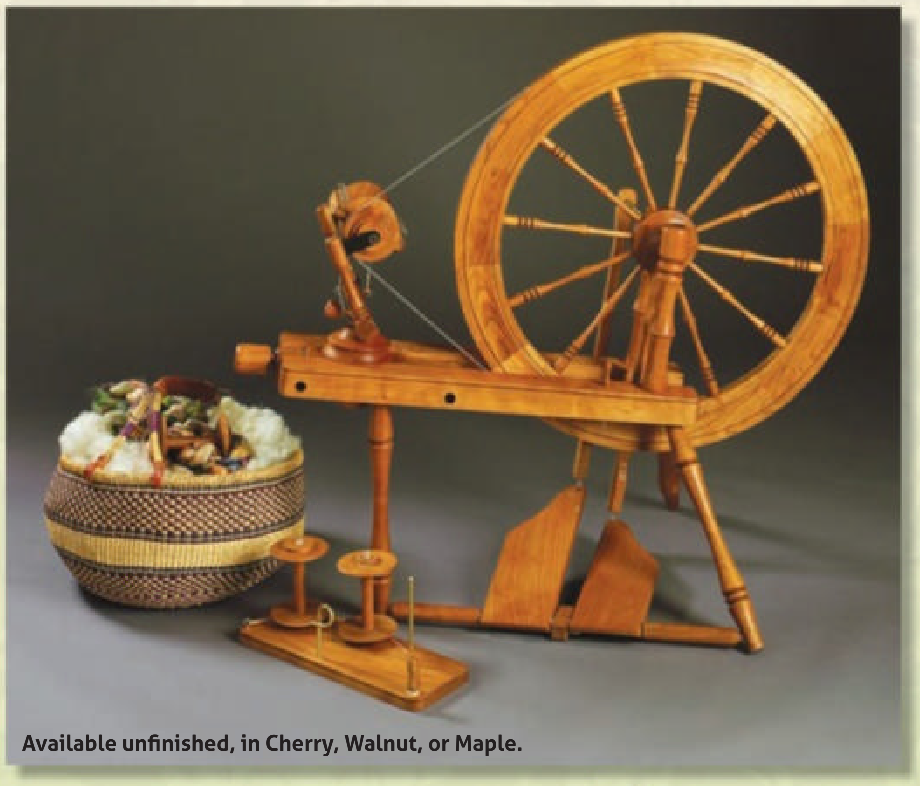

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launched an online fiber-dyeing course. Other than that, I am very happy in my valley in the Welsh hills and have just built a brand-new studio from locally sourced materials. So, I have no plans for world domination and expansion. I'm hoping to be around for a good long while, sending out beautiful fibers to spinners all over the world.

Katie takes an intuitive approach to dyeing, which keeps her engaged.

Cambrian wool is from Welsh Mountain and Bluefaced Leicester crosses that thrive in the Welsh Cambrian Mountain region.

Can you tell us about Colours of Cambria?

Cambrian wool comes from central Wales in a region known as the Cambrian Mountains. Sheep farming is the main agriculture in the area, but the fleece is generally a by-product of the market for lamb.

Welsh Mountain hill sheep are frequently crossed with Bluefaced Leicesters, which results in larger sheep that grow more quickly. This cross also produces beautiful shearling fleeces with a long staple, beautiful sheen, and open crimp. It's a glorious multipurpose wool. The Cambrian Wool Community Interest Project selects the best fleeces from the British Wool Marketing Board [now simply called British Wool] depots, and these are processed in Yorkshire into combed top and yarn.

My studio is on the northern edge of the Cambrian Mountains, and I've worked with the team at Cambrian Wool for a number of years now as they were particularly keen for local artists to make use of the project. As a dyer, I can send the fiber out to the world and spread the word about this great Welsh product. It's a fiber that has fans on nearly every continent!

When I first started stocking Cambrian wool, I wanted to do something that celebrated the landscape that produced the fiber. I particularly wanted to highlight the way in which humans have lived and worked here for millennia. Our countryside is often described as a wilderness, which couldn't be further from the truth; everything that surrounds me has been shaped by the way in which humans have used this landscape. Colours of Cambria was my response to that thought process. Coast, Port, Mountain, Steam, and Mine colorways are all inspired by the palettes I see around me as I travel through this area. ●

Visit hilltopcloud.co.uk to learn more about Katie's fibers, workshops, online community, and more.

We love the makers in our community! Is there a dyer, toolmaker, fiber producer, or mill we should feature? Tell us about your favorite makers—large and small—at **spinoff@longthreadmedia.com**.

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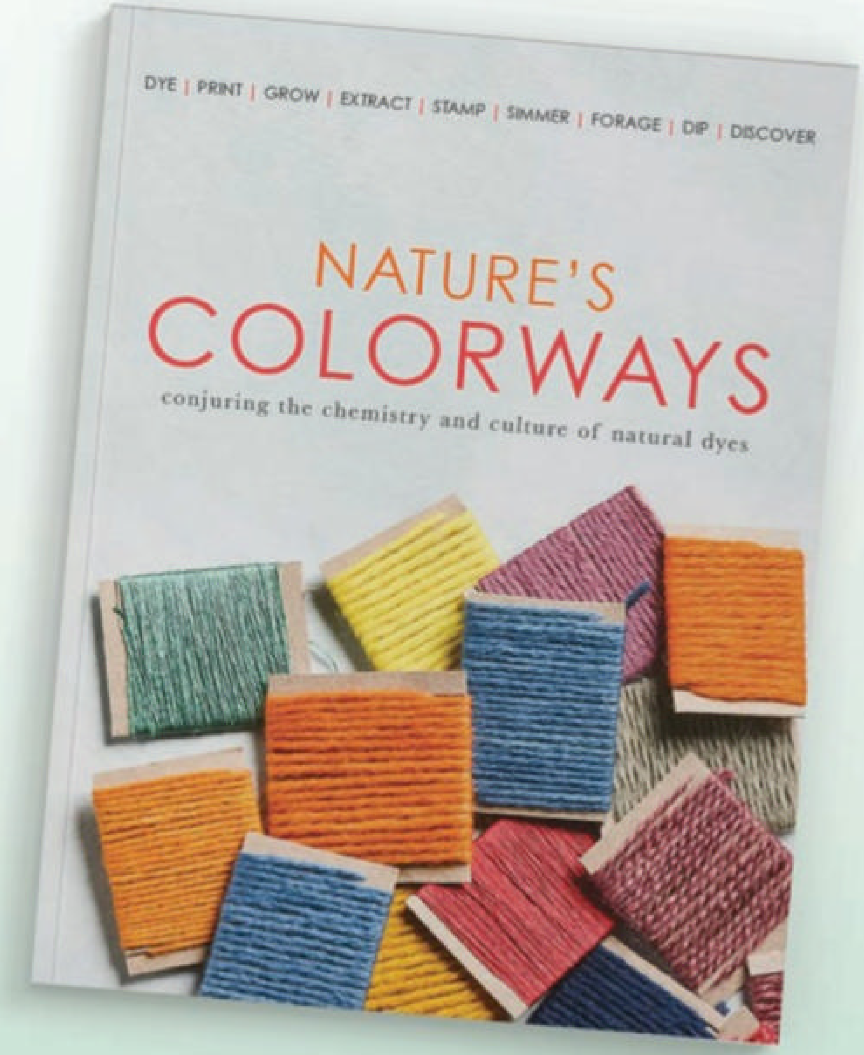
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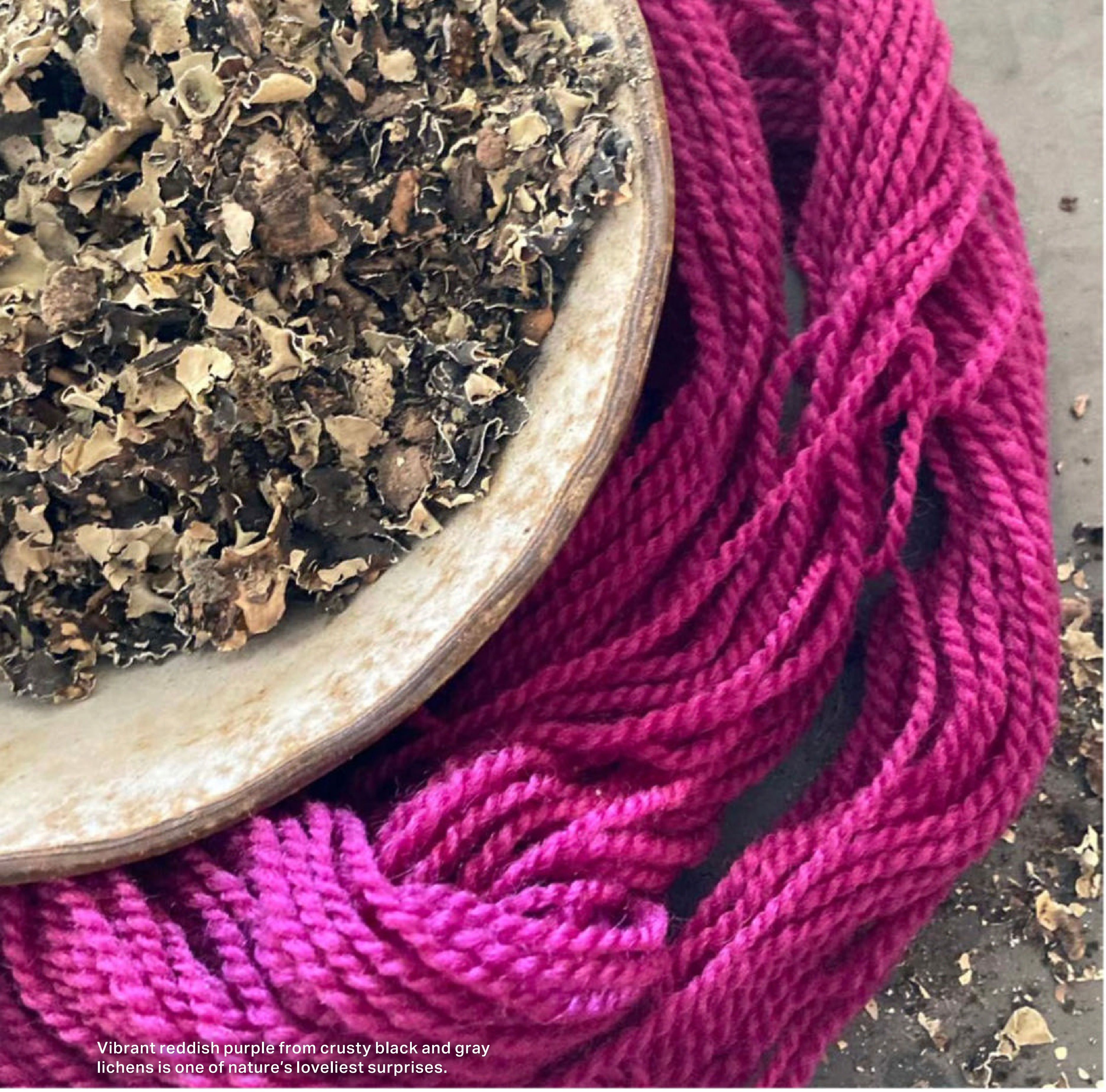


Vibrant reddish purple from crusty black and gray lichens is one of nature's loveliest surprises.

Photos by Linda Ligon

Grocery-Store Lichens for Masalas and Magentas

LINDA LIGON

They're stringy or crusty, they're dirt-colored or greenish-grayish brown. They grow on bark or rocks or sticks or the bare ground. They're some combination of algae and fungi and maybe bacteria, which is very strange! They are lichens.

Strangest of all, these homely life-forms can yield some of the most striking and unexpected colors when brewed up as dyes for fiber. Screaming yellow, gold, amber, rusty orange, brown, even sky blue, pink, or vivid purple. You'd never know by looking at them.

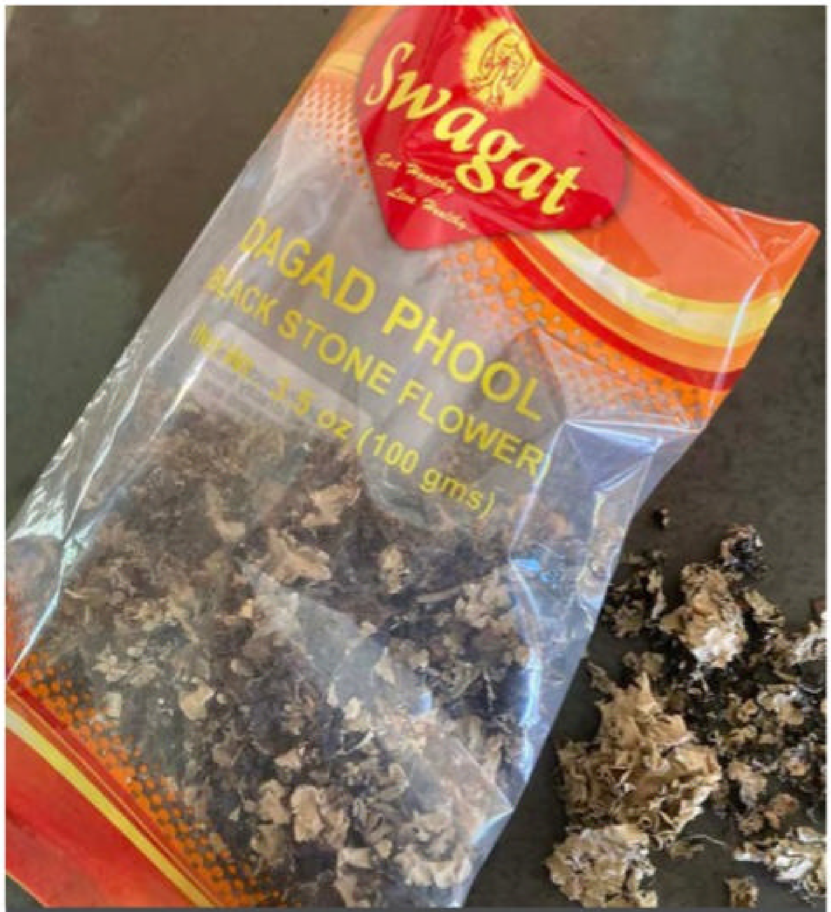
A problem, though, is that many species of lichen are very slow growing and/or rare. Environmentally conscious dyers are reluctant to harvest them. But here's a surprising workaround: go to a grocery store that is well stocked for South-Asian cuisine and look in the spice section for dagad phool, kalpasi, or black stone flower. It's used in mushroom dishes and curries and biryani masalas in Indian cuisine. In the raw, it doesn't taste like much except it is somewhat bitter. I haven't cooked with it myself, but I'm told that when exposed to heat, it adds an earthy, smoky character and deliciousness to a dish.

More interesting to me is that it's just a bag of lichens. Specifically, a bag of *Parmotrema perlatum*. There are several regions in India where this lichen reportedly grows in abundance, so this spice-aisle purchase provides a way to get all the rich purples you could want on unmordanted wool. When I was first gifted a bag of black stone flower, I thought, "This looks so much like the rock tripe lichens I've spent hours picking off stones in the Rocky Mountains." And my meager handfuls would truly produce lovely purples. It seemed worth a try.

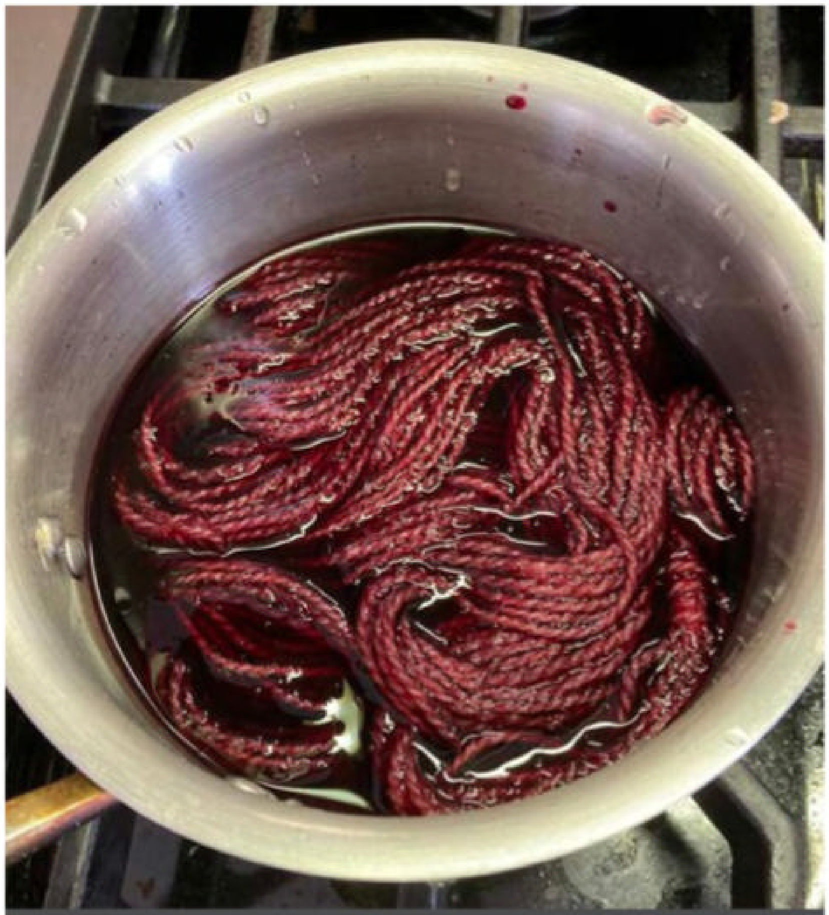
I put about 2 ounces of black stone flower in a canning jar with household ammonia and water mixed half and half. Within days, with a daily shaking, the fluid began taking on a decidedly dark color, and within a couple of weeks, it was a deep, rich, Welch's grape-juice purple. A half cup of this solution in a pot with just enough water to cover my 2 ounces of wool yarn, simmered for an hour and left to cool before rinsing, yielded the vivid hue you see here. It was thrilling. And there was plenty of color left in the dyepot to play around with paler shades and raising the pH with baking soda to trend them toward warm browns.

I checked in with lichen-dyeing expert Alissa Allen (mycopigments.com), and she said that while she hadn't tried *Parmotrema perlatum,* which is native to the Himalayas and southern China, she's found other species in this genus that can give purples and browns.

Black stone flower is by no means the only lichen that's collected and sold for food or medicine. In western Nepal, more than 20 species are collected commercially, and more than 2,000 tons are exported annually. They're not hard to come by on the internet or in specialty grocery stores. What a rich source of natural color, and no foraging required.



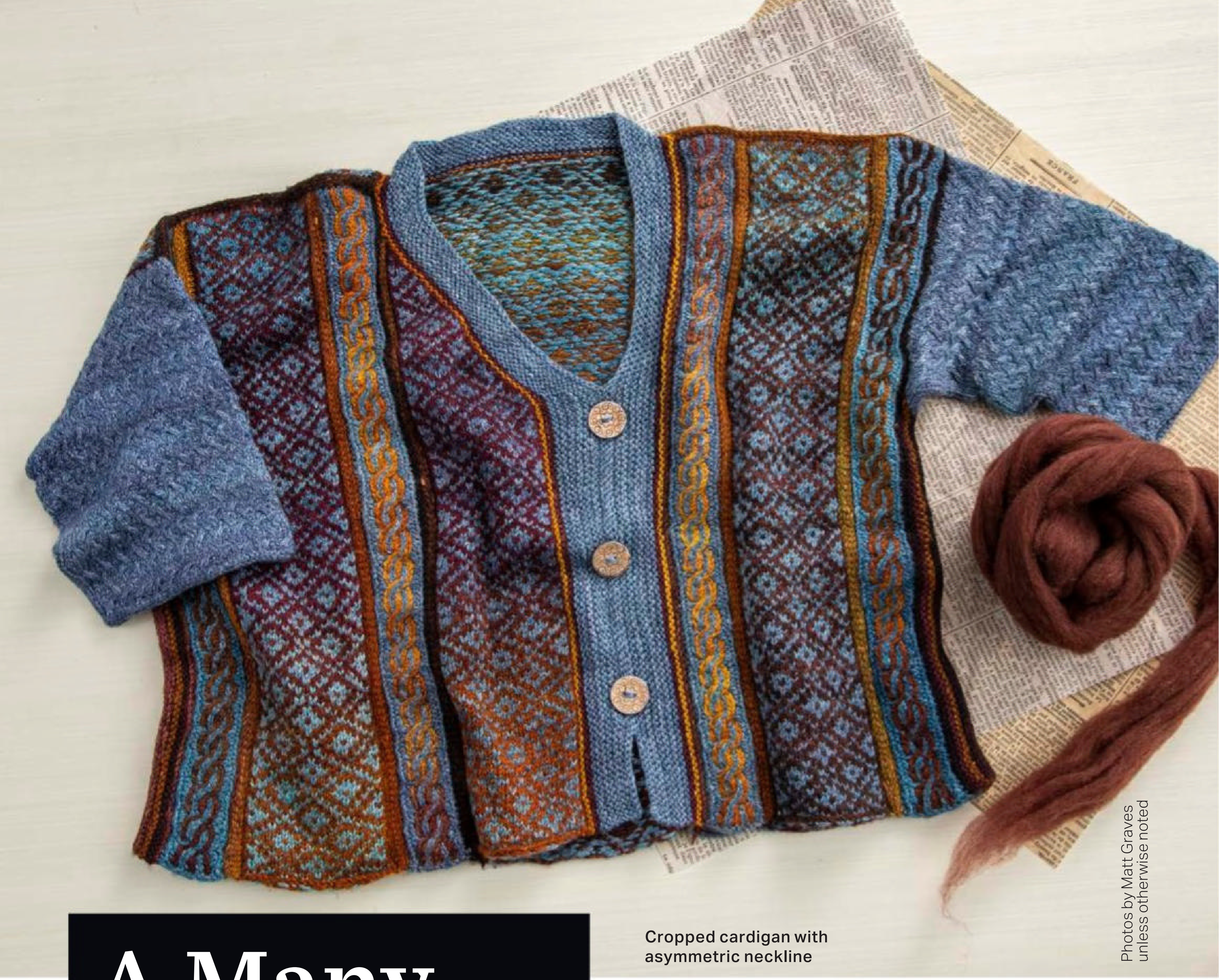
Swagat is one brand of black stone flower that's readily available in specialty grocery stores and from online vendors.



The rich purple of the ammonia-soaked lichens takes up quickly on unmordanted wool. A long, slow simmer and overnight cooling in the dyebath improves lightfastness.

Linda Ligon is a cofounder of Long Thread Media.

> Interested in learning more about black stone flower? Check out "From Bark to Biryani: The Fascinating Tale of Kalpasi" by Siddharth Venkat at the *Kodai Chronicle.* thekodaichronicle.com/?s=kalpasi.



Cropped cardigan with asymmetric neckline

Photos by Matt Graves unless otherwise noted

A Many-Seamed Cardigan

Cable & Colorwork

CAROLYN DOE WITH KATE LARSON

The first time I saw Carolyn Doe's many-seamed cardigan, my knitter's brain was flooded with questions. How was this constructed? The handspun color gradations shift in separate vertical panels; is this all color-stranded knitting? Intarsia and color stranding? How did she plan this glorious use of color?

I am inspired by both this garment and its maker, and I hope you will be, too. Carolyn and I discussed how we might best share the project with readers. As you will see, Carolyn's approach relies on her intuition as an artist and craftsperson rather than extensive preplanning. A written step-by-step pattern would be very complicated and not do this project justice. What follows is a conversation with Carolyn about her artwork, inspiration, and some project nitty-gritty.

—*Kate Larson, editor*

Kate Larson: ***After falling in love with this garment, Carolyn, I visited your website and was delighted to find your other artwork. Seeing the thread of your aesthetic move through different mediums is so interesting. What inspires you?***

Carolyn Doe: My inspiration comes mostly from the natural landscape. My work as a field camp manager and cook around the state of Alaska allows me to experience wonderful, wild, and remote places. I have been as far south as Antarctica as well. Like the cold, the beauty of Antarctica's changing light cuts deep to the bone. Hours spent observing, then I go indoors and create.

As I started this cardigan, I was inspired by the dyed roving. It shifted from gold through orange and into purple and mahogany. I found the blue roving later and thought the combination striking. The blue accented the colors in the handpainted fiber.

KL: ***How do you feel handspun handknits fit into your life as an artist? Are they a cozy diversion or do they fit into the larger scope of work?***
CD: I knit every day. And my spinning wheel is always available for me to sit down for five minutes throughout the day for a relaxing, mindless moment. I don't spin for a specific project. I spin purely for enjoyment and then get inspired by the yarns I make. It is definitely a cozy diversion.

THE GARMENT

KL: ***Can you tell me more about the inspiring fiber that set this project in motion?***
CD: All the fibers are a Merino/silk blend and dyed locally by Heidi at the Artful Ewe, in Port Gamble, Washington. Heidi does amazing, colorful dye work on both fiber and yarn. I also buy locally sourced handpainted roving through my local yarn shop, Bazaar Girls, in Port Townsend, Washington.

KL: ***Did you have all the handspun yarns when you started knitting, or did you spin more along the way?***
CD: I had all the handpainted fiber spun up and chain-plied before I started, but I needed to spin more of the blue as I went along. I was running out of the handpainted colorway when I got to the sleeves, so I decided on a textured pattern in all blue. In June, I had ankle replacement surgery and stayed at my daughter's for most of the long recovery. I spun up as much of the blue as I could before I left, but I ran short. Thus, the half sleeves, which I like.

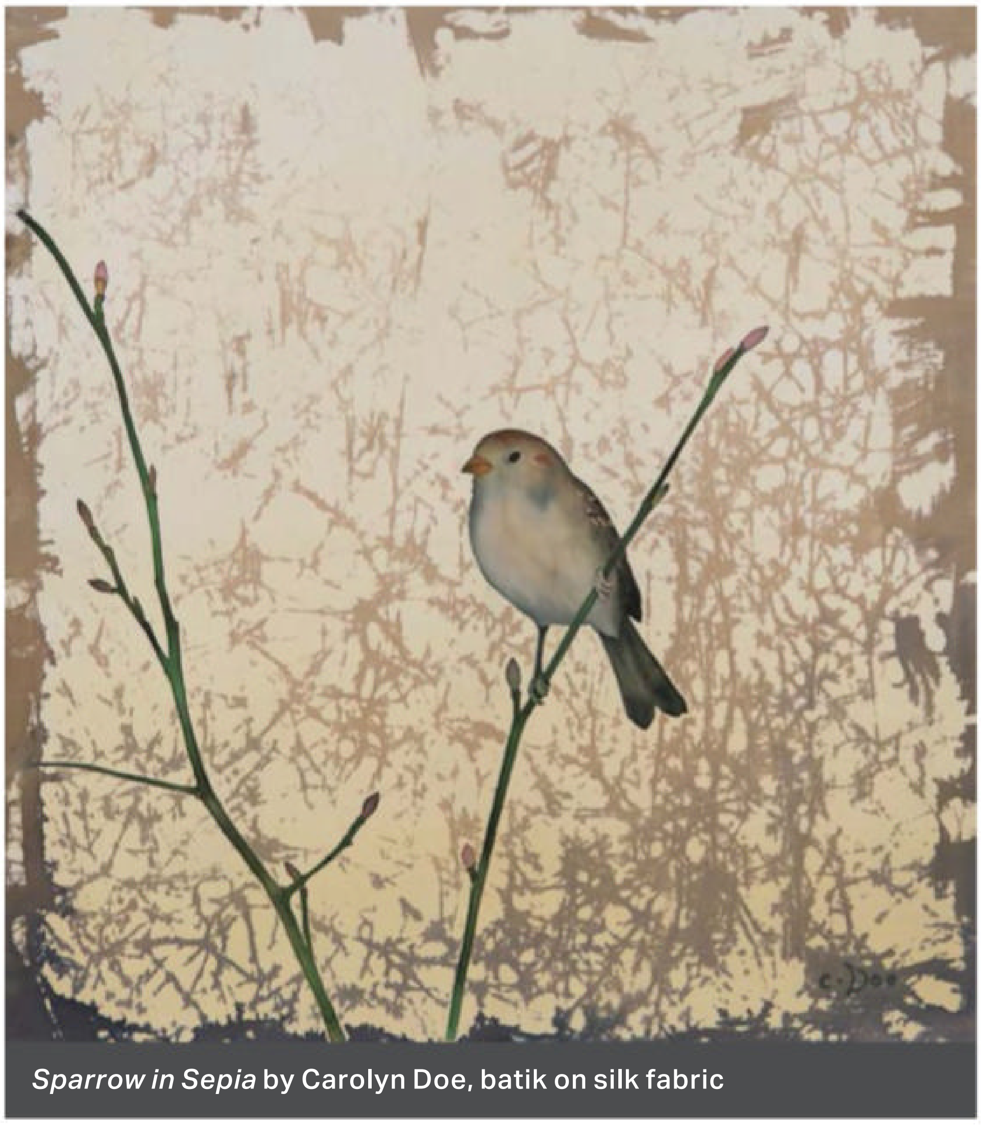

Sparrow in Sepia by Carolyn Doe, batik on silk fabric

Photo by David Conklin, courtesy of Carolyn Doe

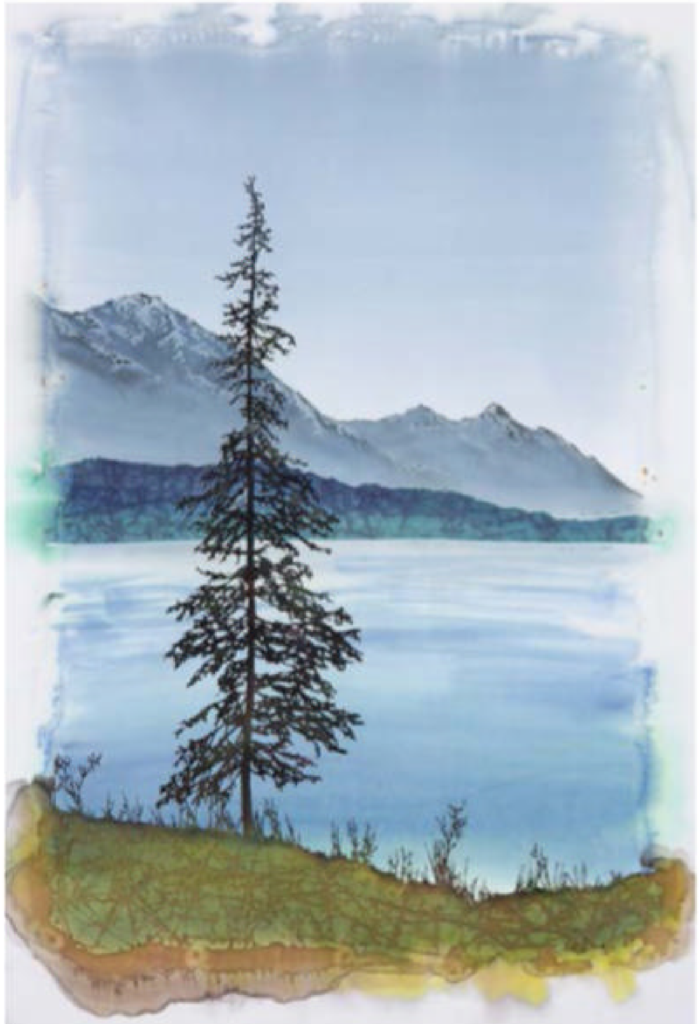

Rick's View by Carolyn Doe, batik on silk fabric

Photo by David Conklin, courtesy of Carolyn Doe

KL: ***Were all these yarns of the same gauge, or do some of the sections have different gauges than others?***
CD: I enjoy spinning for its meditative aspect, so I spin everything the same gauge and then chain-ply to keep the colors separate, creating gradations in my knitting.

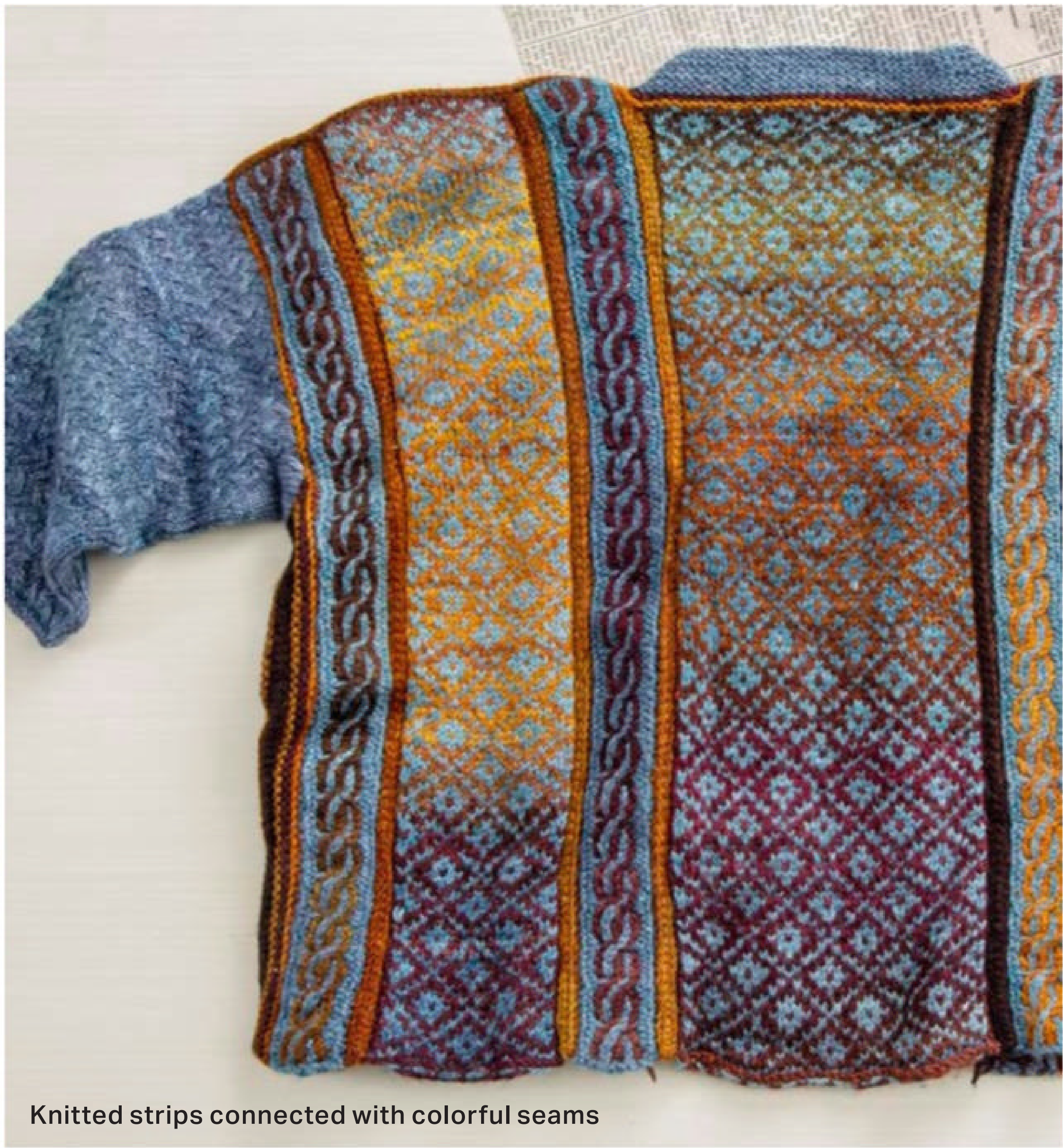
KL: ***What kind of wheel/spinner/spindle did you use?***
CD: I have a Lendrum folding wheel.

KL: ***If it weren't for your use of the color shifts in the chain-plied yarn, it might be easy to misunderstand the construction of your sweater. The colors shifting within each vertical panel/strip creates a unique look in the finished garment. How did you do it?***
CD: This is a make-up-as-I-go-along cardigan. I started by knitting strips of fabric in either cables or simple Fair Isle while I considered what to do with them. This way, I could start knitting with my handspun yarns while still not quite sure of the end piece. I always need to have something to knit. Always.

By the time I had the first strip completed, I had an idea of the direction I was heading and could continue knitting with a goal. My goal shifted around as more strips were completed, and I started to sew them together.

To call more attention to the seams, I picked up and bound off along the side of each strip. This accents the seams and brings more color into the piece. Then, I stitched the pieces together using backstitch.

KL: ***Is this the first garment you've constructed in this way or have you been exploring these techniques for a while?***
CD: I love sewing seams, so I've been making sweaters this way for a while. Each project evolves in its own way though. I don't have a picture in my head of the finished pieces. And they start with inspiration



Knitted strips connected with colorful seams from hand-dyed roving. I don't write anything down. I never do anymore.

KL: ***What piece did you start with?***
CD: I started knitting the two-color patterned and cable panels first. I didn't have a picture in my head of the whole, and I wanted to start knitting something. As I completed the panels, I started sewing them together.

KL: ***Did you knit the colorwork sections flat or in the round with a steek?***
CD: The colorwork sections are knitted flat, and then I did the same pick-up and bind-off along each side as for the rest of the strips.

KL: ***Where did you end—the neck edging?***
CD: I ended with the sleeves. The idea for them came last, after the body was completed including the neckband.

KL: ***Such freedom! Did you have any sections that didn't work out? Did you remove any or just keep adapting?***
CD: I had to redo the neckband. It needed more precise fitting.

KL: ***What's on your wheel now? Where does the work take you next?***
CD: I have some painted blues and purples and greens of Merino on my wheel right now. I might pair that yarn with a variegated, natural gray handspun yarn when it's finished. I'm thinking of it for a man's raglan sweater.

This work connects me to all the other spinners and knitters on the planet and maybe especially to all the ones who came before. All of us together are discovering and adding to this incredible knowledge of using sticks and fiber to make fabric.

And every time I pick up needles and yarn, my fingers know what to do. ●

Carolyn Doe is mostly self-taught, which only means she just plays until she figures something out. Her ongoing education in any art form takes place through her own passion and pleasure in the exploration of creative processes. The mediums themselves have become her teachers. See more of her work at carolyndoe.com, or on Instagram @carolyn.doe.

Two-Color Cable

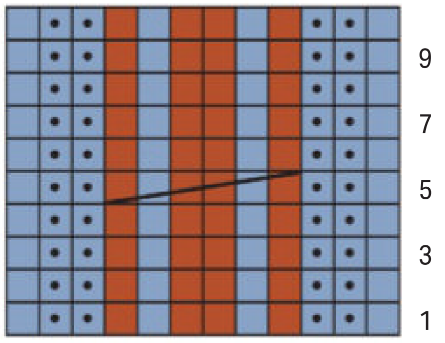
This cable with color stranding is worked as a flat, narrow strip. The colorwork is created with a stranded-knitting technique. Twisting MC and CC between the knit and purl stitch at each edge will help stabilize the center cable. However, there are many ways to adapt this simple strip to make it work for you.

CO 12 sts in MC.

Join CC and work Row 1 of Chart.

Continue working chart and repeat Rows 5–10 until strip is desired length, BO with MC.

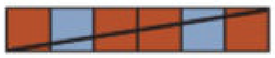
Colorwork Cable

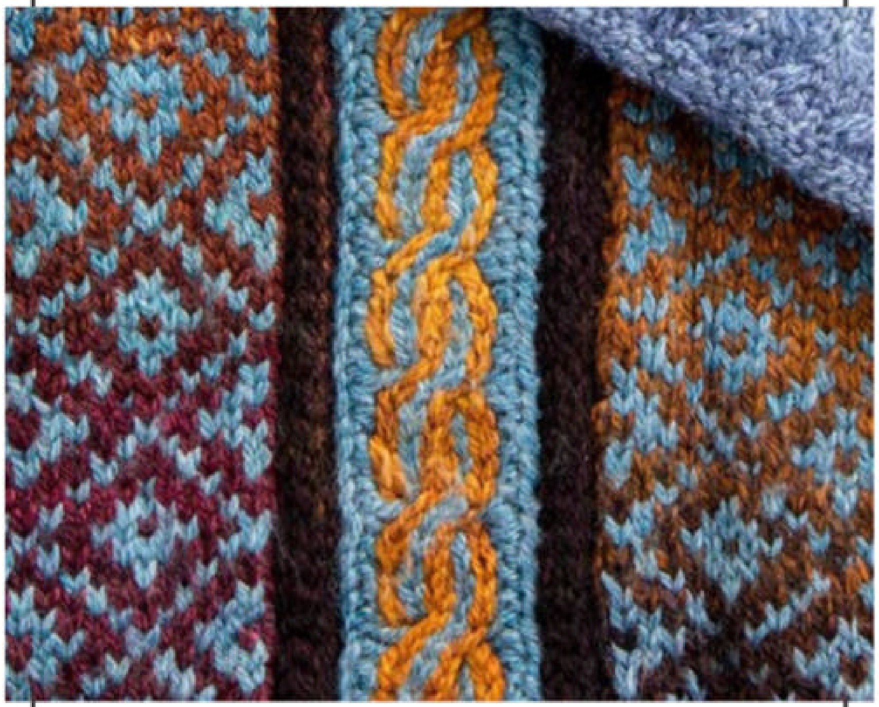


🟦 knit MC on RS, purl MC on WS

⊡ purl MC on RS, knit MC on WS

🟧 knit CC on RS, purl CC on WS


place 3 sts on cable needle and hold to back, knit next 3 sts in pattern, work 3 sts from cable needle in pattern


A cable worked in stranded color creates a bold yet elegant accent.

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The Curious Colorist

Small-Batch Dyeing for the Dabbler

SUSAN Z. DOUGLAS

Color for all

Photos by Matt Graves unless otherwise noted

Quick! What's your favorite color? I used to just say "green," but now I find the question more complicated. My favorite is a particular shade of green, leaning far into gold, and the color is mellowed a bit. Even that description doesn't seem adequate. It also brings up another color concept, juxtaposition of color. How can I explain that I also like a particular shade of golden tobacco, but I really love it next to a bit of Prussian blue?

Exploring color interactions can be as simple as holding two or more skeins together. We all do that at yarn shops or in our own fiber stashes. Lately, I have been experimenting with knitted slip-stitch patterns, and I keep in mind the Kaffe Fassett adage, "When in doubt, add twenty more colours." I like to make my eyes dance over the fabric. I like it when a color combination seems plain wrong but as I continue working, the "bad" part somehow fits right in.

To create the handspun palettes needed for color experiments, I often blend my hand-dyed fiber to spin into small amounts of yarn (see "Never-Ending Blending: An Experimental Method of Sequencing Batts," *Spin Off*, Spring 2014). However, I also wanted a way to dye several small skeins of my handspun yarn in different colors at one time. Imagine having dozens of colors, shades, and tints at hand and always having the power to make even more. That's what this little exercise in small-batch dyeing is all about.

THE GATHERING

I rummaged through my handspun stash for some undyed skeins that were about sportweight, which is my favorite range for knitting. To me, this means a consistent (ish!) yarn with a grist of about 100 yards per ounce, or 1,600 yards per pound (3,225 meters per kilogram). I found some Tunis two-ply processed from fleece and some decade-old Merino two-ply spun from top. To these, I added some newly spun white Targhee top, a Bluefaced Leicester/Corriedale blend, and a charcoal Merino blend that I could overdye for darker shades. The yarns in my pile were far from identical, but close enough was good enough since I was making small amounts of so many colors. The different fiber characters and breeds would be used together, and the occasional variation in weight or softness wouldn't pose a problem.

I had some trepidation about cutting the yarn into small skeins because it meant my full skeins could never be whole again—it changed their possibilities. However, the thought of making a fabulous assortment of colors quickly won me over, and I snipped. I made roughly three skeins from each ounce of yarn. I wanted to make enough yardage to play with, but the skeins also needed to fit into the little dye pans I planned to use. Each skein needed to fit in a mini loaf pan* and still have space to move around in the dye solution. I tied the small skeins loosely in a couple of places to ensure that they would survive the process untangled.

DYEING LITTLE BITS

I could fit six mini loaf pans in my thrift-store roaster oven, so this determined the number of skeins I could dye at one time. Because the small pans

Susan's Supplies and Equipment

- Synthrapol for presoak
- Pro Chemical & Dye WashFast Acid Dyes in Sun Yellow, Fuchsia, Bright Blue, Caramel, and Black
- Citric acid
- Noniodized table salt

Equipment

- ⅛-teaspoon measure (0.6 milliliter)
- 3-cup measure (720 milliliters)
- Squeeze bottle for each dyestock (recycled dish-soap bottles work well)
- Pint jar marked at ½ cup
- Spoon or dowel
- 12-quart roasting oven (no turkey ever again for this oven)
- Rack for bottom of oven
- 12 aluminum-foil mini loaf pans

Safety Supplies

- Mask for handling dye powder
- Gloves for handling dye mixture
- Oven mitts

Susan developed a palette of colors in small handspun skeins by just playing with—not measuring or planning—her dye mixes.

require little water for the skeins to move around in, the resulting skeins can be a bit semisolid. You may want to try using a different heat source, larger vessels and skeins, or different dye products, but this method can be a platform for you to develop your own technique.

Step 1: Presoak the Skeins

I gathered six small skeins and soaked them in a small basin of warm water and a few drops of Synthrapol, a wetting agent, for a half hour. While they were soaking, I mixed the dyes.

Step 2: Mix the Dyestock Solutions

I first selected five colors: three primaries, Caramel, and Black. In individual squeeze bottles, I mixed ⅛ teaspoon of one dye with ½ cup of the hottest tap water I could get. I doubled the recipe for yellow, since I knew I'd be using more of it than the red and blue. Making sure the cap was on and snapped down securely, I shook vigorously until no particles of unmixed dye remained.

Step 3: Mix and Distribute the Dyebath Base

I prepared a dyebath base by mixing 3 cups of hot tap water, ½ teaspoon of citric acid, and ½ teaspoon of salt. After squeezing most of the water out of my skeins, I arranged each in a separate mini loaf pan and added ½ cup of the dyebath base to each.

Then I was ready to add the dyestock solutions to create new colors. I mixed the dye for each skein separately by first placing small squirts of dye into the pint jar, mixing the colors at whim. Great colors are at our fingertips even with just a few basic color-theory guides: mixing two primary colors creates a secondary color; adding a teensy bit of a color's complement can tone down brightness; a golden brown like caramel can mellow and de-intensify some brighter colors; and black will darken and shade.

I had to remind myself that the skeins were tiny, so very little dye was needed, even for saturated colors. After mixing the dye, I added enough water to the jar to make ½ cup, lifted a skein from its tin, and poured in the dye mixture. I gave the dyebath a little stir and replaced the skein, making sure it was covered completely. If needed, I lifted out the skein again to add a bit more dye or to add a little more water.

Step 4: Set the Dye

To steam the yarns, I placed a rack in the bottom of a roaster and added an inch or so of water. I had already determined how to fit the six pans into the oven, so I carefully placed them in. With such small dyebaths, it was important to keep the skeins submerged as the temperature rose. I punched holes in a second set of mini pans that could gently push down on each skein while still allowing the dye to circulate.

I turned on the heat to 350 degrees Fahrenheit (177 degrees Celsius) and set my timer for 45 minutes. The little dyebaths were mostly or all clear by then. (The time needed to bring small dye vessels up to temperature will vary depending on the heat source. Checking the skeins every 20 minutes or so is a good idea.) I shut off the oven and unplugged it, letting everything cool gradually. Once cool, I drained, rinsed, dried, and admired the skeins.

Mixing dyes and pondering the results when the skeins have dried is a wonderful way to explore color. Luckily for spinners, this can be just the first step in the color-theory exercise. Now I can cast on and put these little skeins to work. ●

** If you are seeking exact dyeing results, use a nonreactive dye vessel, such as glass or stainless steel. The aluminum pans used here could impact results, but they are accessible and suited this project's purpose.*

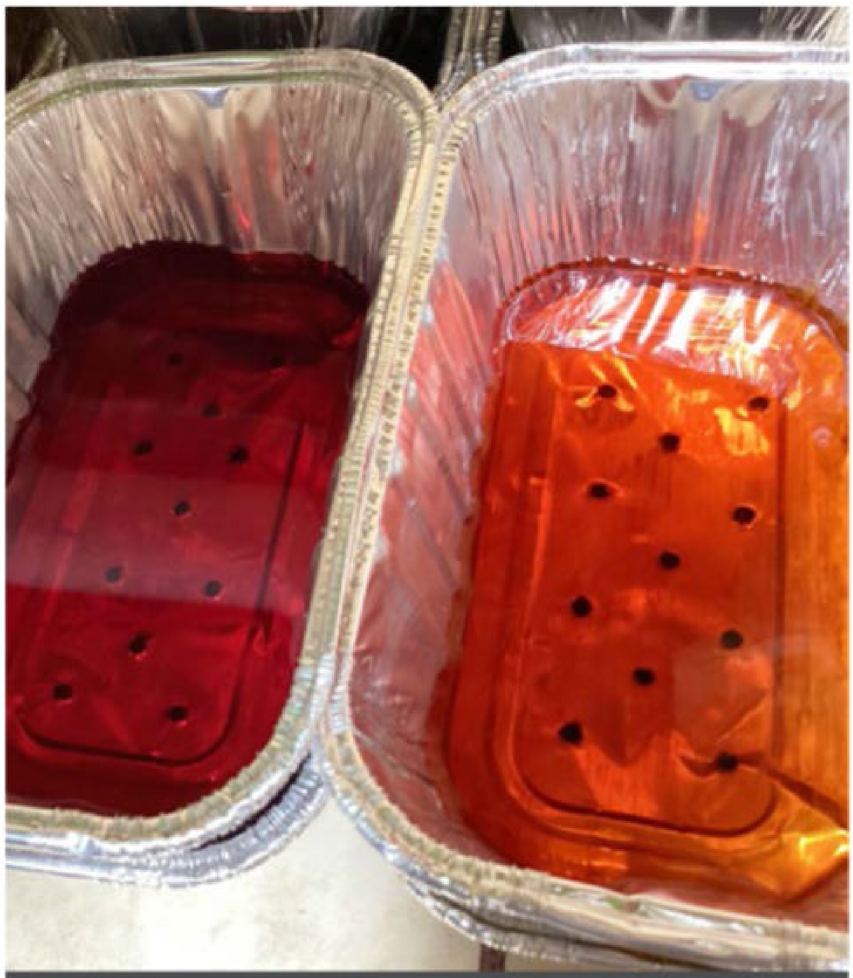
Resources

Fassett, Kaffe. *Glorious Knits*. New York: Clarkson Potter, 1985.
Pro Chemical and Dye, prochemicalanddye.net.

Remember the old toy commercials that urged kids to "collect 'em all"? Now retired and living in Maine, **Susan Z. Douglas** loves *all* the colors, and her goal is to collect 'em all.

> There are many ways to experience color creation and dyeing. This method is footloose and fancy-free. If reproducible colors and measured aliquots are your jam, check out Terry Mattison's "Find Your Colors: Road Map to Repeatable Dyes" in *Spin Off* Spring 2021.

Susan used mini loaf pans to create many dyebaths at once.



A second pan placed on top of the first held the skeins down while still allowing the bath to circulate.

Photos by Susan Z. Douglas

Photos by Matt Graves
unless otherwise noted

Variations on a slip-stitch theme

Slipped-Color Exploration

SUSAN Z. DOUGLAS

If small-batch dyeing exercises have left you rich in mini skeins of many colors, then this stitch pattern can be your payoff. It's a bit sneaky. Even a seasoned knitter might be fooled into thinking it is worked with a stranded-knitting technique, but it derives its punch from easy slip stitches alternating with plain rows.

THE ORIGINAL PATTERN AND THE GAME CHANGER

I found this pleasant-looking pattern in *The Harmony Guide to Knitting Stitches,* Volume 3, and I was curious to see how it was accomplished. The instructions revealed that the color change every four rows would allow me to try color combinations, but could I adapt the pattern and switch every two rows instead of every four? I was more than a little surprised at the result, and I saw that it presented a huge opportunity for color experiments.

My first rough swatch used light colors for the plain rows and dark colors for the slip-stitch rows. From that, I tried medium to dark colors for the plain rows and light colors for the slip-stitch rows. I even tried, boldly for me, all neutrals. I expect to try other ideas such as using garter stitch for the plain rows or alternating two rows of thick with two rows of thin yarns.

TIPS AND TRICKS

All knitting stitch patterns have considerations when you apply them in different ways. This basic pattern can be adapted in so many ways to create sweaters, cowls, scarves, throws, and more.

Row Count

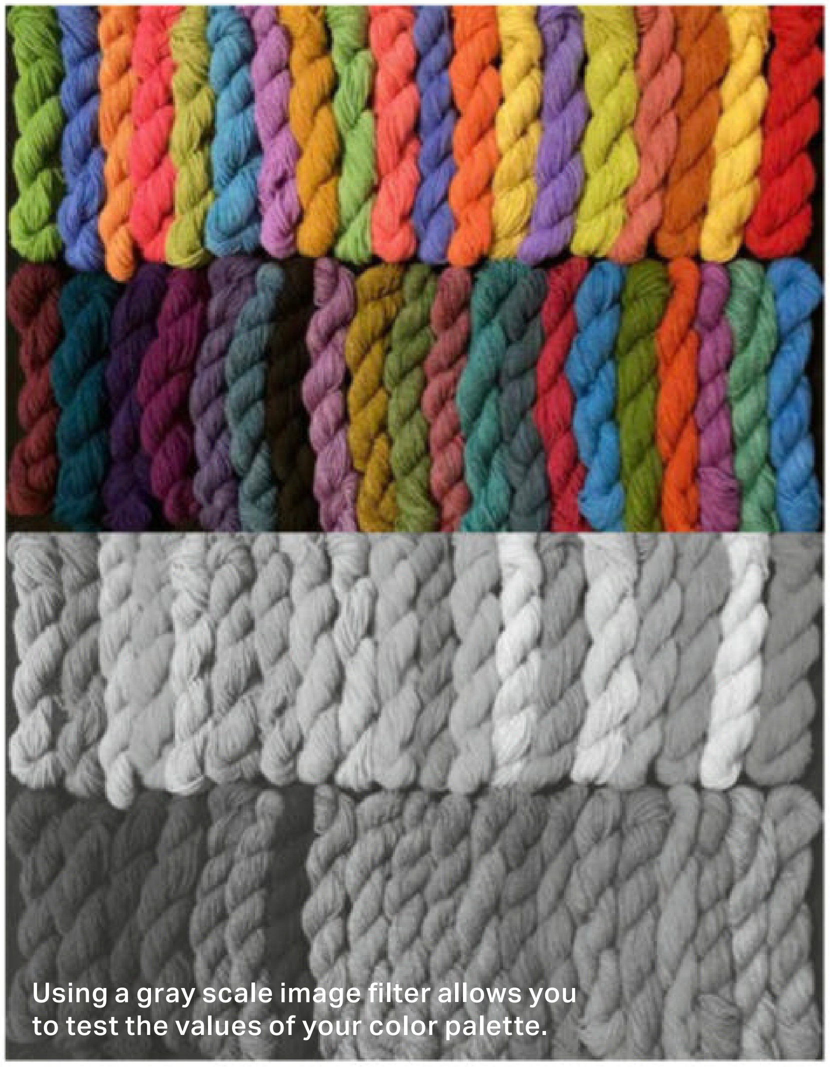
Like all slip-stitch patterns, this pattern is row dense. For every complete pattern repeat (eight rows), only six rows are visible in the knitting. This is important to know when you are counting for your row gauge. The good thing is that the slip-stitch rows go a bit more quickly than the knit rows.

Worked Flat

This pattern makes use of a stockinette-stitch base, so there is edge curl to manage. The horizontal edges could use the old standard of garter or seed stitches, or maybe a garter-based slip stitch.

All Those Ends

Changing colors frequently while knitting means that there will be many ends to weave in or manage in some other way. A flat fabric such as a scarf could be worked horizontally, and all those glorious ends could be turned into twisted fringe. I used this method on some of my swatches and found that it controlled the side curl well. If the pattern is worked



Using a gray scale image filter allows you to test the values of your color palette.

Photos by Susan Z. Douglas

Susan's Swatch

Flat knitting: Multiple of 6 plus 2.

If adapting for circular knitting: Multiple of 6.

Note: For Susan's variation, change colors on Rows 1, 3, 5, and 7.

Row 1 (RS) Knit.

Row 2 (WS) Purl.

Row 3 K1, *k1, slip 4 pwise wyib, k1; rep from * to last st, end k1.

Row 4 P1, *p2, slip 2 pwise wyif, p2; rep from * to last st, end p1.

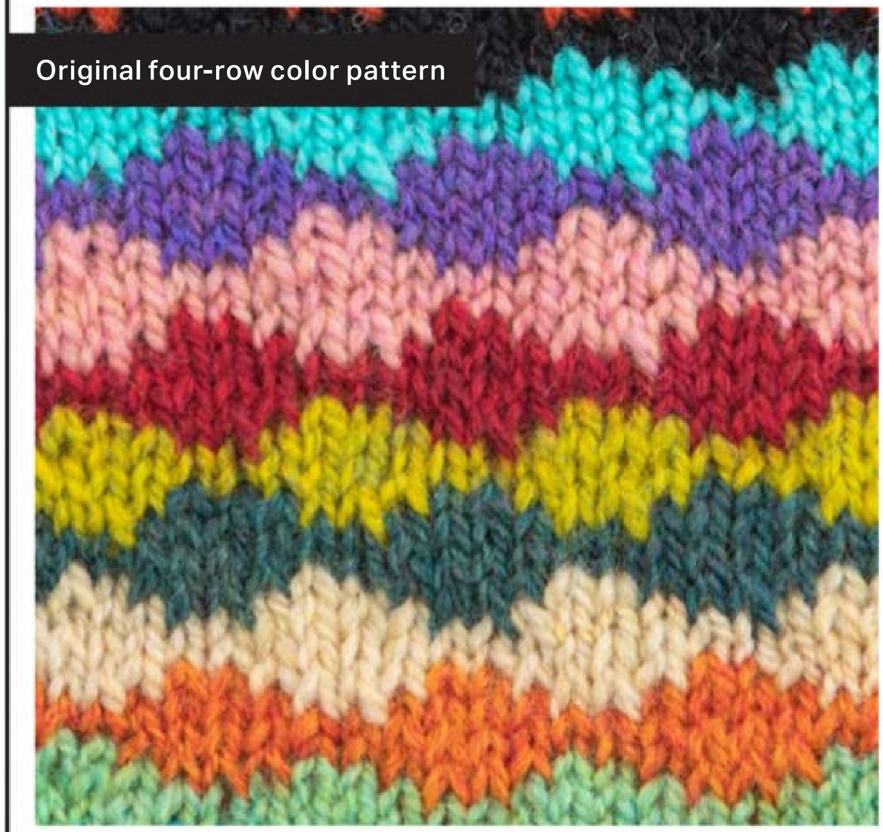
Row 5 Knit.

Row 6 Purl.

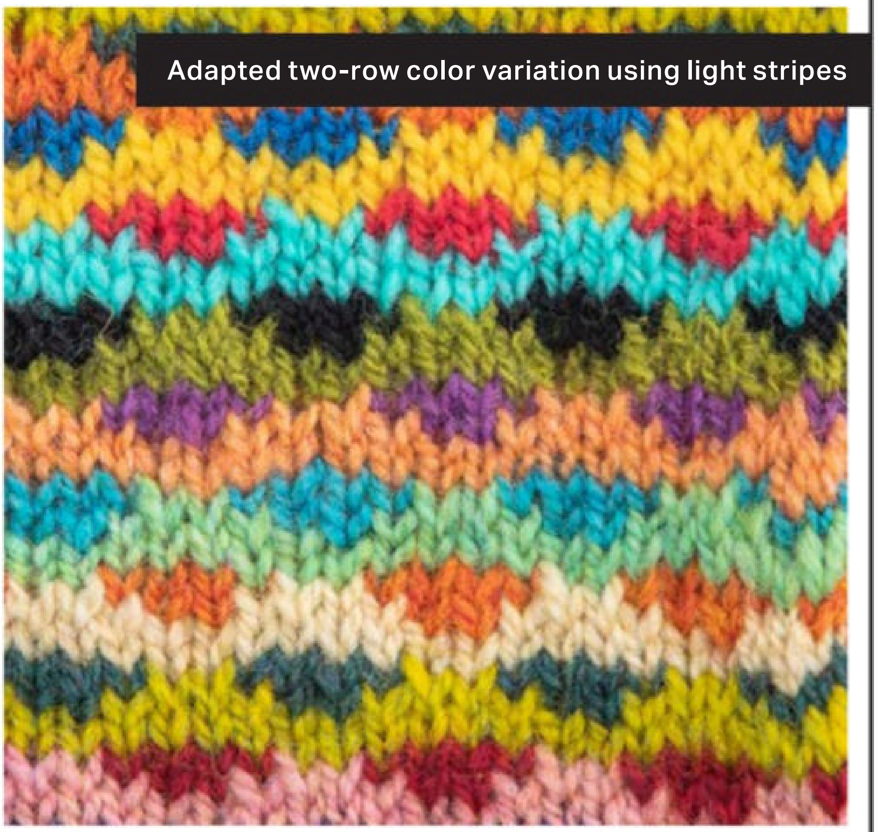
Row 7 K1, *slip 2 pwise wyib, k2, slip 2 pwise wyib; rep from * to last st, end k1.

Row 8 P1, *slip 1 pwise wyif, p4, sl 1 pwise wyif; rep from * to last st, end p1.

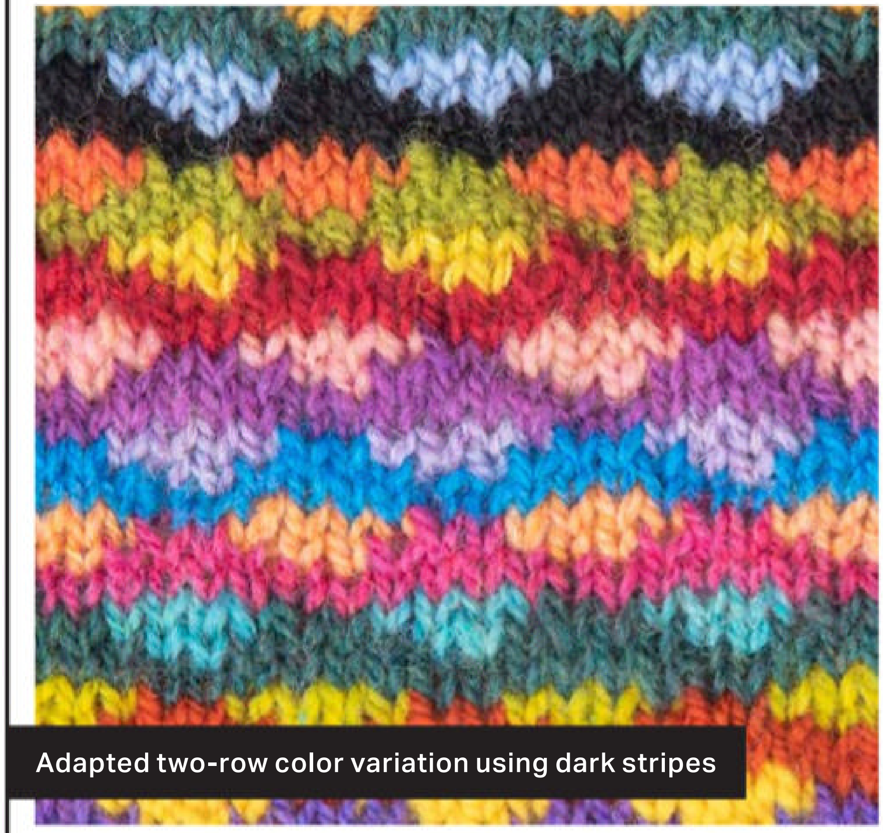
Rep Rows 1–8.



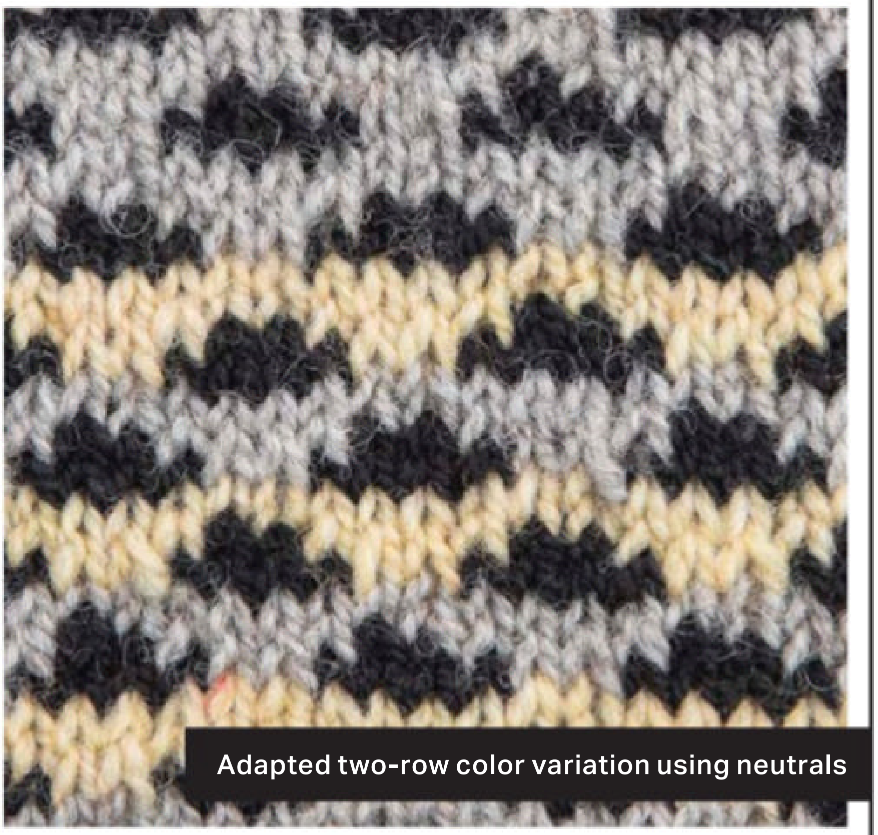
Original four-row color pattern



Adapted two-row color variation using light stripes

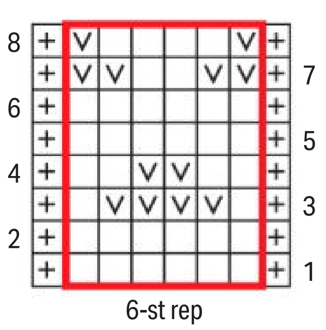


Adapted two-row color variation using dark stripes



Adapted two-row color variation using neutrals

Slip-Stitch Chart



Key

☐ k on RS; p on WS

+ selvedge

V slip 1 pwise wyib on RS; slip 1 pwise wyif on WS

□ pattern repeat

Note: Change colors at Rows 1 and 5 for original pattern. Change colors on Rows 1, 3, 5, 7 for the variation.

in the round, yarn ends could be knotted and hidden inside. Others have done it; you can, too. Also, if working circularly, consider starting each color in a different spot than the previous color. That way, the knots will be scattered throughout rather than creating a line of bulk.

COLOR MUSINGS

The more I think I understand about color, the more experience proves me wrong, but here are my thoughts anyway. Color relationships—primary, secondary, tertiary, complementary, analogous, and so on—are important. However, the interaction of dark and light colors is also important. To create contrast, it's helpful to determine the value—lightness or darkness—of your colors. An easy way to do this is to lay out your yarn, snap a photo, and then edit the image saturation so that it appears in gray scale. If you have a black-and-white filter, this is even faster. When looking at the image in black and white, it's easy to pick out the very dark yarns. You may be surprised, as I was, that colors thought of as dark turned out to have medium value. Some colors, such as orange, frequently surprise me.

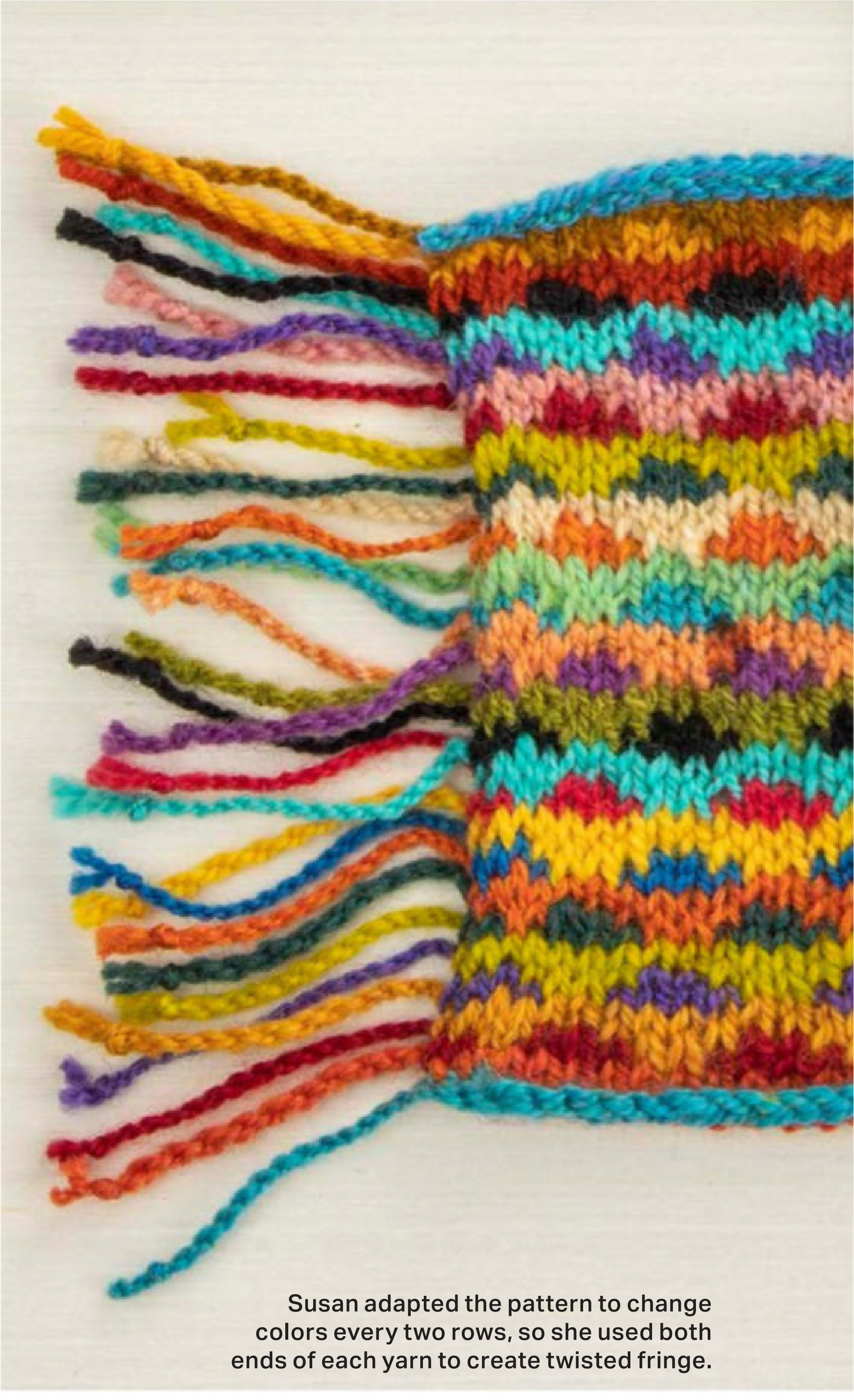
For this knitting pattern (and many other colorwork patterns) to work, a palette of colors with good to very good contrast is what keeps the eyes dancing, but that limit can be stretched. It isn't necessary to use only light and dark colors; you can use medium shades, too. The main thing is to have enough contrast in the slip-stitch rows so that they stand out against the plain rows. Luckily, an apparent mistake in color choice can often be balanced in subsequent rows. Just keep going. The "mistake" could be the very thing that makes the piece sing and play.

Resources

Devaney, Barbara. *Harmony Guide to Knitting Stitches.* Vol. 3. London: Lyric Books, 1990.

Visit **spinoffmagazine.com/spin-off-abbreviations** for terms you don't know.

Remember the old toy commercials that urged kids to "collect 'em all"? Now retired and living in Maine, **Susan Z. Douglas** loves *all* the colors, and her goal is to collect 'em all.



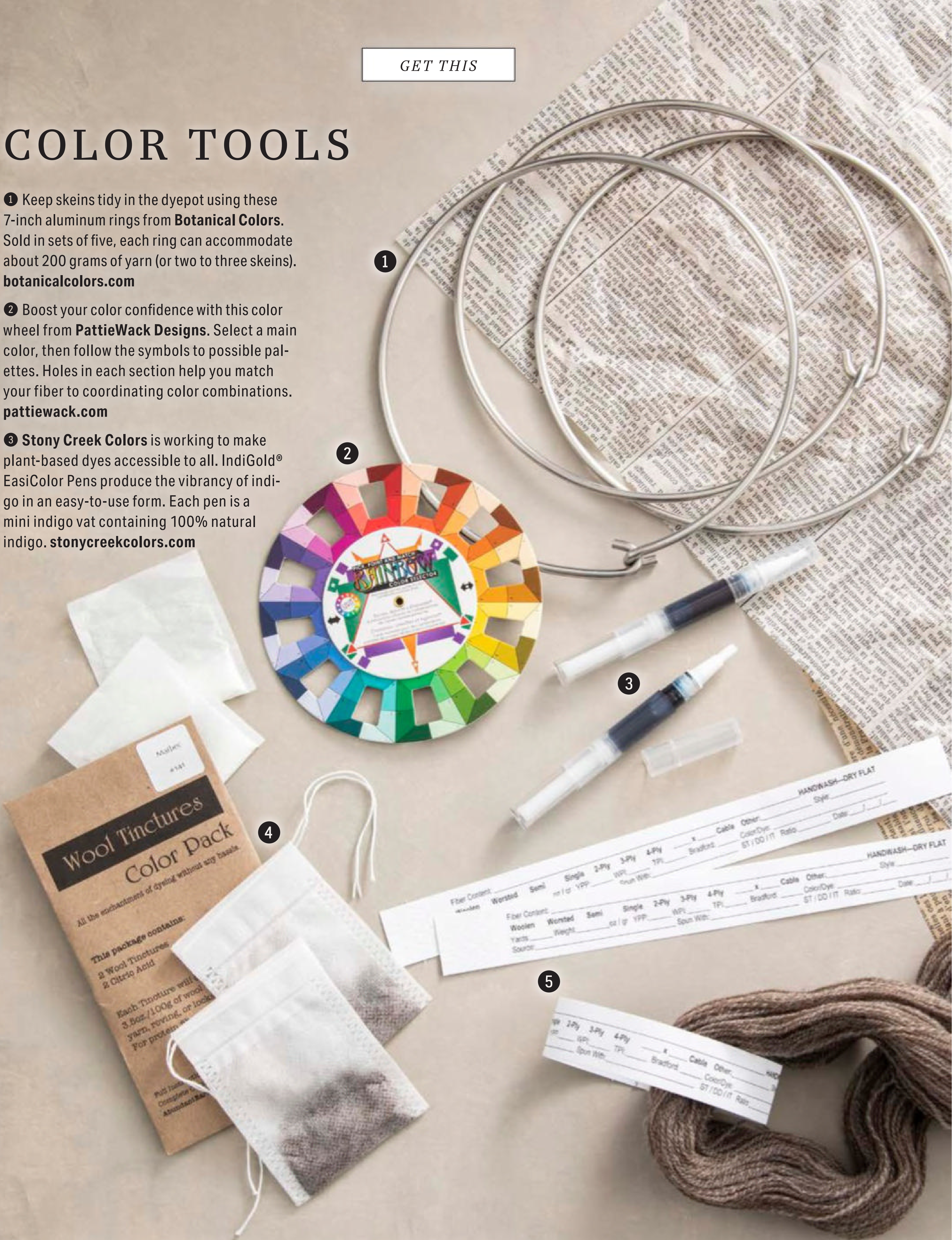
Susan adapted the pattern to change colors every two rows, so she used both ends of each yarn to create twisted fringe.

COLOR TOOLS

❶ Keep skeins tidy in the dyepot using these 7-inch aluminum rings from **Botanical Colors**. Sold in sets of five, each ring can accommodate about 200 grams of yarn (or two to three skeins). **botanicalcolors.com**

❷ Boost your color confidence with this color wheel from **PattieWack Designs**. Select a main color, then follow the symbols to possible palettes. Holes in each section help you match your fiber to coordinating color combinations. **pattiewack.com**

❸ **Stony Creek Colors** is working to make plant-based dyes accessible to all. IndiGold® EasiColor Pens produce the vibrancy of indigo in an easy-to-use form. Each pen is a mini indigo vat containing 100% natural indigo. **stonycreekcolors.com**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❺ Use **Cardinal Woodwork**'s skein labels to tag your finished skeins. These waterproof labels, available in packs of 10, include room to record fiber content, YPP, WPI, spinning ratio, and more. **cardinalwoodwork.com**

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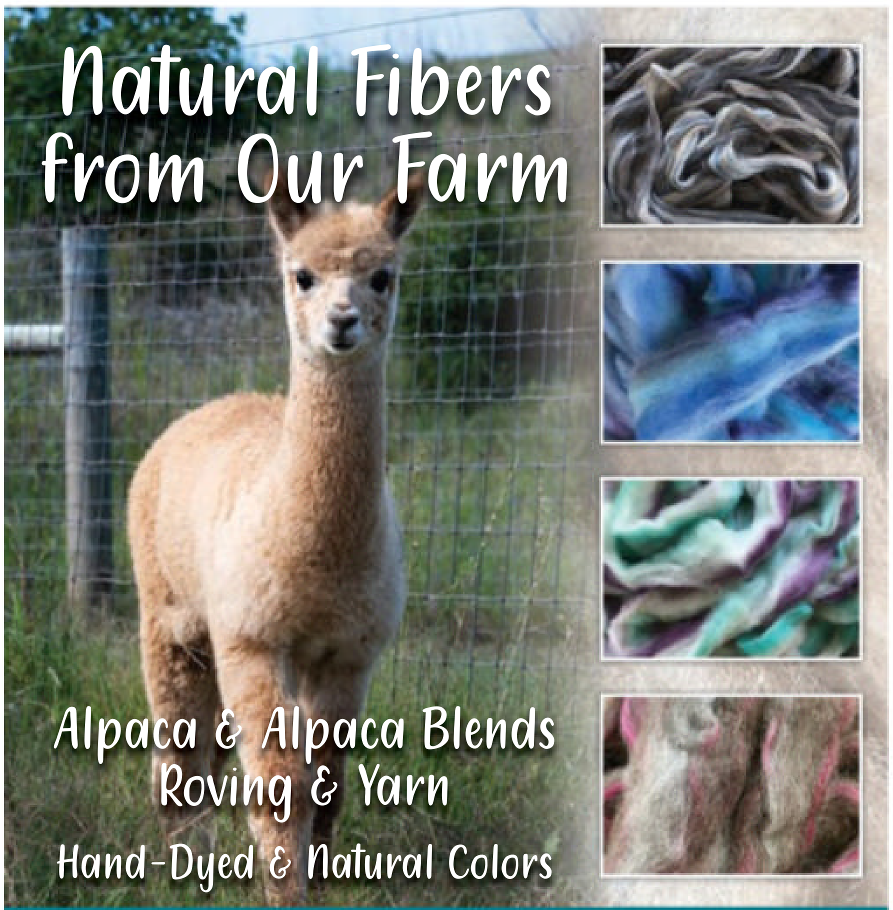
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Photos by Matt Graves

Try adding a few pops of color to familiar knitted stitches.

Striated Handspun Hat

JOANNA JOHNSON

A few years ago, I started musing over the idea of introducing small flecks of color into my spinning. Looking back at my collection of handspun yarn, I observed that some of my skeins seemed overcrowded with color, and I wished there was a way to create some visual breathing room in my yarns. I decided to try breaking up deeper, saturated colors with a neutral background.

Previously, I had purchased a bump (30 pounds) of combed top from Brown Sheep Company and was brainstorming ways to start spinning it up. In case any of you are wondering, yes, I do think that purchasing an entire bump was a lot, and no, I don't regret it at all! This easy-to-spin Columbia/Rambouillet-cross wool is also available by the pound if that amount feels more manageable.

SPINNING NOTES

At the time I acquired this beautiful bump of wool, I was admiring the work of indie dyers who were experimenting with speckle-dyed yarns, introducing fun pops of color into their work, and I decided to try mimicking this effect but with spinning rather than dyeing.

I started by spinning a bobbin of cream-colored singles using a long-draw method and estimating about 220 yards from 1 ounce of fiber. For the second bobbin, I began introducing small pinches of blue fiber every 3 to 5 yards or so. I didn't prioritize precise spacing between the jots of color; rather, I just allowed myself to enjoy the process of grabbing bits of color to bring into the yarn as I spun, not unlike the process of adding pinches of seasoning to a pot of soup or stew.

As I "speckle-spun" this second bobbin, I attempted to keep the gauge as consistent as possible with the first. I plied the bobbins together, yielding a skein of yarn weighing about 2 ounces and measuring about 200 yards. I swatched the yarn in a few stitch patterns and decided that I really liked the way the color played out in garter stitch. The raised ridges of this comforting, familiar stitch look so much like the skein I enjoyed creating.

MATERIALS

Fiber 100% Columbia/Rambouillet Cross (Brown Sheep Company), undyed, 2 oz (57 g). 100% Merino (Ashland Bay), Baltic, ½ oz (14 g).
Yarn 2-ply fingering weight (1,925 ypp; 16 wpi), 230 yd.
Needles Size 3 (3.25 mm): 16" circular (cir) and set of double-pointed (dpn). Adjust needle size if necessary to obtain the correct gauge.
Other Supplies Markers (m); tapestry needle.
Gauge 24 sts and 48 rnds = 4" in garter st.
Finished Size 20 (22)" circumference and 7¼ (9)" tall.

Visit **spinoffmagazine.com/spin-off-abbreviations** for terms you don't know.

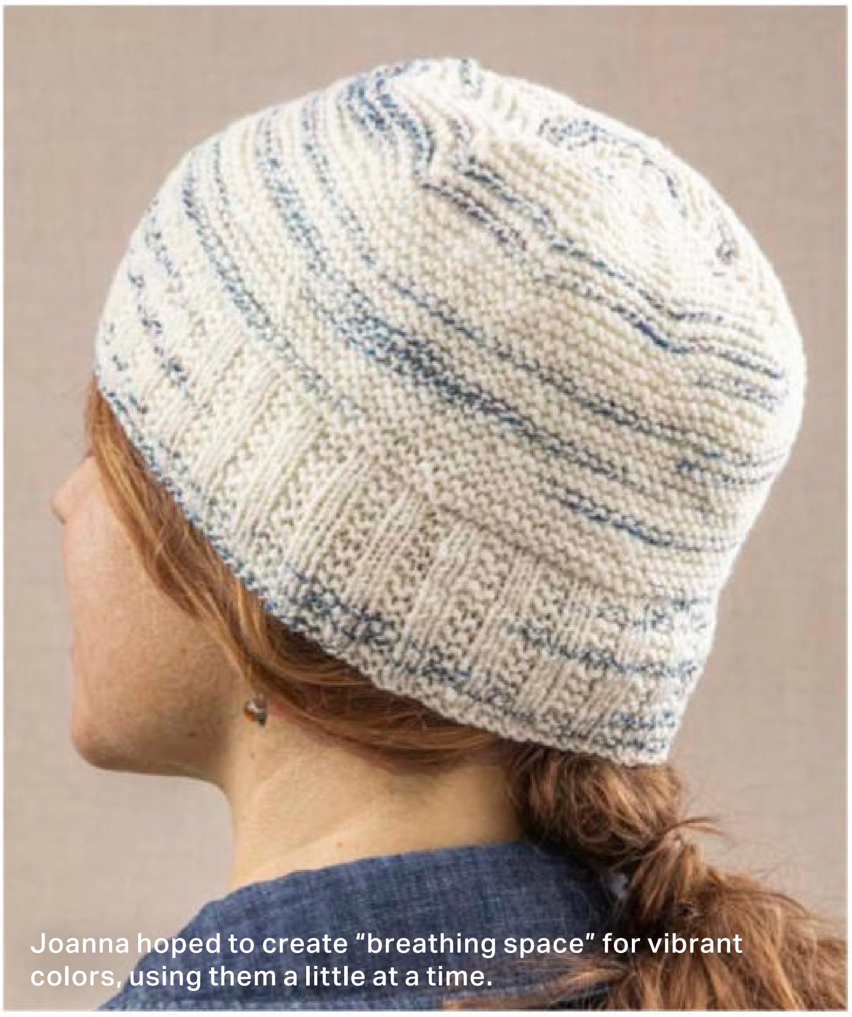
What's a Bump?

Rovings and combed tops are often shipped and sold by the "bump," often weighing between 20 and 30 pounds. A common bump today is a 22-pound (10-kilogram), hard, woolly cylinder of spiraled sliver that is compressed and tied tightly for shipping. Cutting the ties and watching the wool expand brings joy to a spinner's heart.

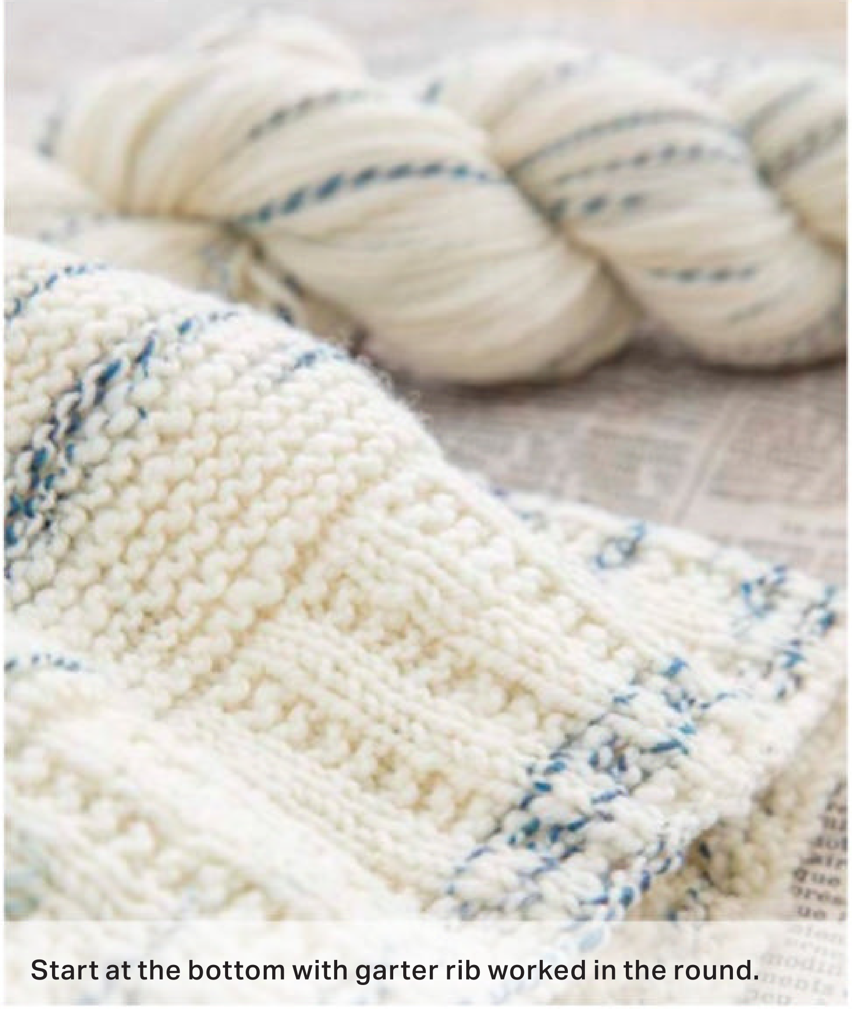
Would you like to spin Brown Sheep Company's delicious, US-grown Columbia/Rambouillet cross by the pound rather than by the bump? Order 1-pound balls at brownsheep.com.

Brown Sheep Company US-grown Columbia/Rambouillet combed top

Photo courtesy of Brown Sheep Company



Joanna hoped to create "breathing space" for vibrant colors, using them a little at a time.



Start at the bottom with garter rib worked in the round.

Notes

- This hat is worked in the round from the bottom up and features garter rib and garter stitch worked in the round.

HAT

With cir needle, CO 120 (132) sts. Place marker (pm) and join in the rnd.

Rnd 1 *K2, p2; rep from * to end of rnd.

Rnd 2 Knit.

Rep last 2 rnds until piece measures 2¼ (3)" from CO, ending with Rnd 2 (1).

22" size only:

Next rnd K32, k2tog, k64, k2tog, k32—130 sts rem.

Both sizes:

Rnd 1 Knit.

Rnd 2 Purl.

Rep last 2 rnds until piece measures 5¼ (7)" from CO, ending with Rnd 1.

Shape Crown

Note: Change to dpn when necessary.

Set-up rnd *P12 (13), pm; rep from * to end.

Dec rnd *Knit to 2 sts before m, k2tog; rep from * to end—10 sts dec'd.

Purl 1 rnd.

Rep last 2 rnds 9 (10) more times—20 sts rem.

Next rnd [K2tog, remove m] 10 times—10 sts rem.

Next rnd [P2tog] 5 times—5 sts rem.

Cut yarn leaving a 12" tail. Thread tail onto tapestry needle and draw through rem sts. Pull tight to gather sts and fasten off on WS.

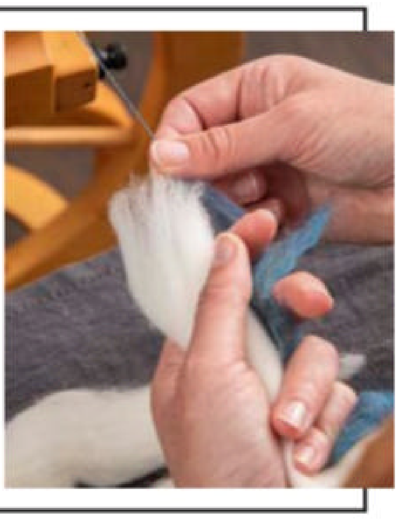
FINISHING

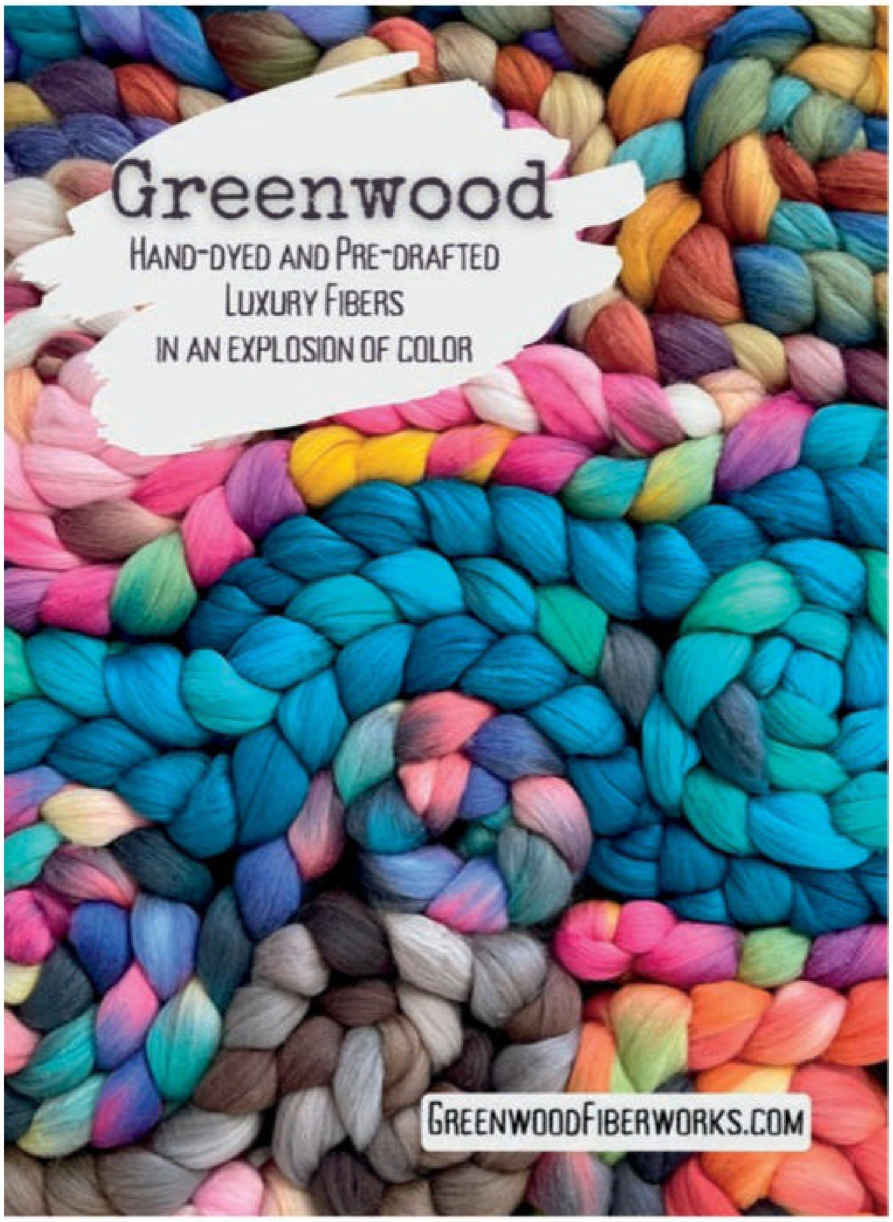
Weave in ends. Block to measurements. ●

Joanna Johnson is an author and publisher based out of Loveland, Colorado, where she operates Slate Falls Press with her husband, Eric. The Johnsons have created four knitting storybooks together: *Phoebe's Sweater, Freddie's Blanket, Phoebe's Birthday,* and *Henry's Hat*. She has also written a collection of four literary-themed knitting books and has plans to continue finding ways to combine her love of books and yarn. Learn more at slatefallspressbooks.com.

There's More!

Are you inspired to try adding shots of vibrant hues to your handspun? Spin Off magazine subscribers can log in to download a new tutorial: "Inspired by Speckles: Two Techniques." LT.Media/Speckles





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The Handspinner and the Hydrogen Ion

DR. ANNAMARIE HATCHER

Understanding pH can help you troubleshoot fleece washing and dyeing.

> *"One of the many things that I have learned as a working craftsperson is that good design is not simply a matter of good taste—it requires good science as well."*
>
> —Judith MacKenzie McCuin[1]

As a zoologist and handspinner living in Cape Breton, Nova Scotia, I have a keen interest in the spaces where the natural world, cultural practice, and scientific observation overlap. To support my all-consuming interest in handspinning, I dove into the rabbit warrens of fleece cleaning and natural dyeing.

From the beginning, I wanted to control the whole process from sheep to garment, and I had the attitude that no fleece was too dirty. A little bit of this and a little bit of that produced a clean fiber much of the time, and a little bit of the other with a splash of vinegar gave interesting, if not repeatable, colors. When my favorite recipe didn't produce the result I wanted, I resorted to the standard practice of blaming it on the water. I needed to understand the process to avoid the "hit-or-miss" results that seemed a bit like alchemy.

Handspinners are accustomed to quite a lot of casual chemistry. Those of us who dye protein fibers with acid dyes know that a bit of vinegar or citric acid can set the color. If we use soda to modify a natural dye, we know that we shouldn't use too much, and the soaking time must be kept to a minimum to avoid damaging the wool. We also recognize the resourcefulness of those who collected urine and fermented it to create a source of ammonia for scouring and dyeing. All of these processes relate to pH, a commonly used scale to indicate the concentration of hydrogen ions. Measuring and modifying pH is the handspinner's superpower. Let's look at the influence of pH on some of the processes we use to turn fleece into colorful fabric.

THE STRUCTURE OF WOOL

My discussion here covers principles related to protein fibers, and while I focus on wool, the information also applies to mohair, alpaca, angora, silk, and more. Plant fibers are constructed differently and have their own considerations for scouring and dyeing.

Keratin is the protein that forms the basic building blocks of many structures such as horns, hooves, feathers, wool, and hair. Keratin contains amino groups (alkaline with a positive charge) and carboxyl groups (acidic with a negative charge). The amino groups react with acids and the carboxyl groups with alkalis in scour or dye solutions, depending on the pH.[2] There it is—the basic principle. Opposites attract and likes repel. Because keratin has both amino and carboxyl groups, it can react with scour or dye solutions in a wide range of pH values.

Washing Wool and Scouring Fleece

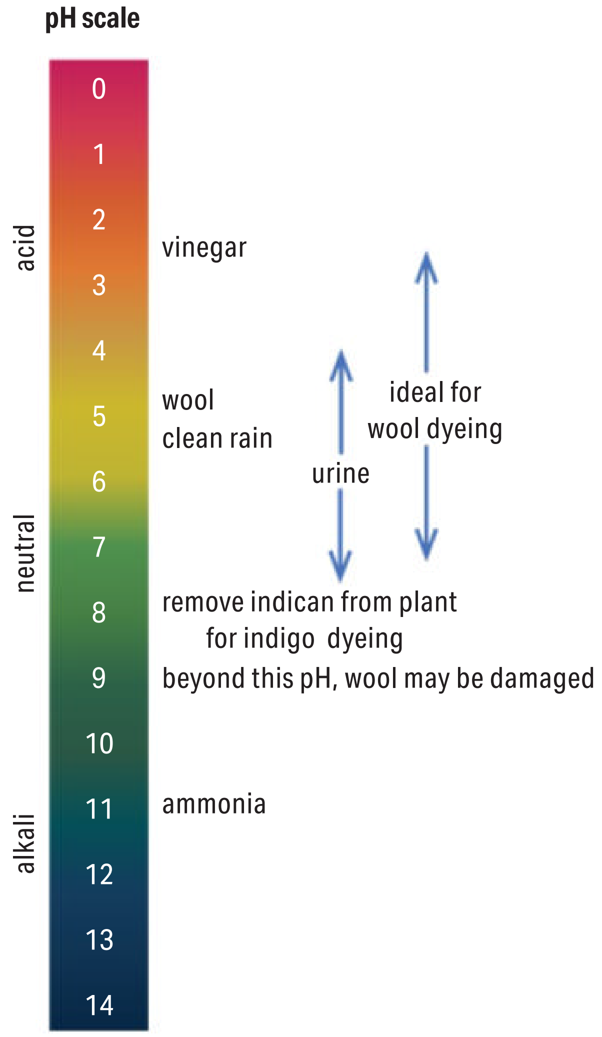
Wool is comfortable in slightly acidic conditions, right? That is true for the fiber itself, but raw fleeces are another matter. The process of scouring raw fleeces can be complicated and specific to the particular fiber and the contaminants that you want to remove. Measurement and control of pH can play a large part in taming the process to achieve the desired result.

Neutral pH is 7.0. The ideal pH for protein fibers such as wool is 5.0, so washing yarns and textiles should be done in a slightly acidic solution. Rainwater is a good choice for wool washing because clean rain usually has a pH of 5.6.[3] The water that comes out of our taps might be neutral or mildly acidic or basic (another term for alkaline) depending on where we live. Using pH papers to determine your water's pH value is quick and easy.

Raw fleeces that need to be scoured contain fats and other contaminants (lanolin, suint, or unidentified grease). Modern detergents allow us to clean both our household laundry and our farm-fresh fleeces in a

What Is the Potential of Hydrogen (pH)?

The abbreviation pH stands for "potential of hydrogen" or "power of hydrogen," and it is the measure of the concentration of hydrogen ions in a solution, an indicator of acidity or alkalinity. A pH value, measured on a scale of 1 to 14, is the negative logarithm of hydrogen ion (H+) concentration. Acidic solutions, such as vinegar and citric acid, have higher concentrations of hydrogen ions and lower pH values than alkali solutions, such as dissolved ammonia or soda. Small number changes on the pH scale actually mean large changes in acidity. For example, a change in just one unit from pH 8.0 to pH 7.0 indicates a tenfold increase in acidity.



Definitions

Acid A chemical substance with a pH less than 7, which means a higher concentration of hydrogen ions (H+) than a neutral substance.

Alkali A chemical substance with a pH greater than 7 that can accept hydrogen ions

Amino Describes a chemical compound that contains the group NH_2

Anion A negatively charged atom that has more electrons than protons

Carboxyl Group consisting of a carbon atom that's double bonded to an oxygen atom and singly bonded to a hydroxyl (–OH) group

Cochineal A scale insect that lives on the prickly pear cactus in tropical and subtropical South and North America. This insect produces carminic acid to deter predators, which is also used as red and purple dyes.

Keratin A structural protein

Lanolin Waxy substance secreted by the sebaceous glands of wool-bearing animals

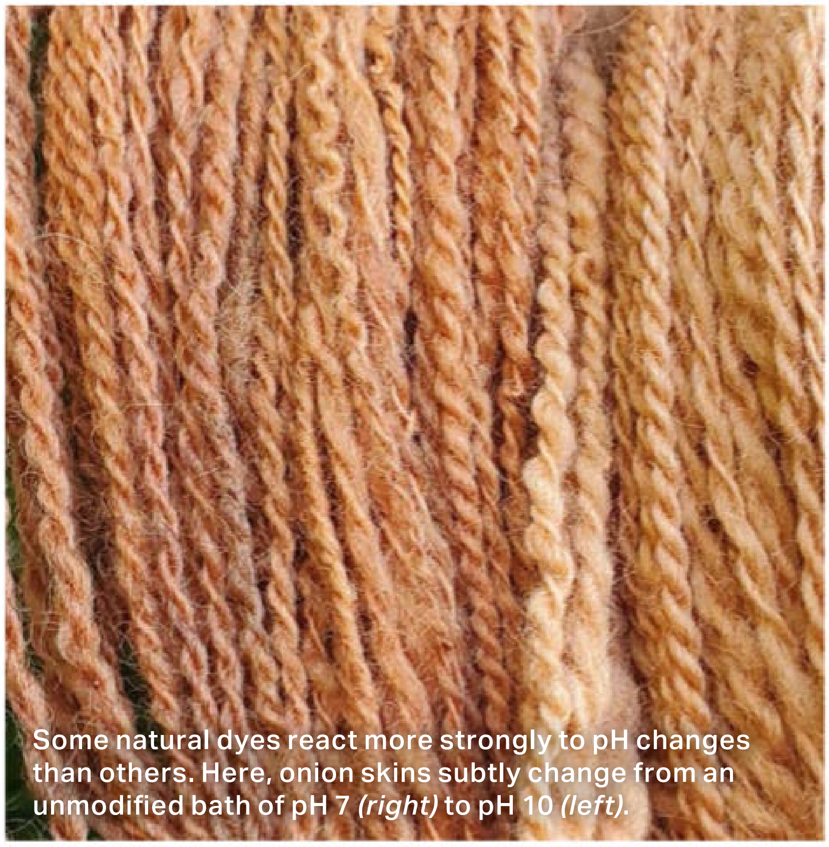
Mordant A weak solution of metal salts to assist the dye in fixing to the fibers

Oxidation The process that occurs when electrons are removed from a substance

Substantive dyes A class of dyes that need only dye liquor to give good color

Suint Secretion from the sweat glands of the sheep, which contains many different compounds and is water soluble

Reduction The process that occurs when a material accepts electrons



Some natural dyes react more strongly to pH changes than others. Here, onion skins subtly change from an unmodified bath of pH 7 *(right)* to pH 10 *(left)*.

Apple mint (*Mentha suaveolens*) changes dramatically from a neutral dyebath *(left)* to a pH 10 dyebath *(right)*.

Photos by Annamarie Hatcher

wide range of pH and temperature conditions. In the past, people using natural soaps often relied on alkali assists, such as washing soda, to dissolve grease. The obvious danger of this method for scouring wool is that while an alkali can greatly aid in removing grease from raw wool effectively, too much alkali (pH higher than 9.0) may damage wool, especially at temperatures over 125 degrees Fahrenheit (52 degrees Celsius). After the fleece has been cleaned of fats and oils, you should move it to a bath with a mildly acidic pH (around 5.0).

NATURAL DYES AND pH

Proteins can be dyed with an assortment of natural and nonnatural dyes, but the success of the dyeing process depends on the strength of the bond between fiber and dye particles.[4] The pH of the dyebath can play a significant role in that bonding. In most cases, an ideal pH range is 3.0 to 7.0 when dyeing wool.[5] When wool is immersed in an acidic bath, the amino and carboxyl groups rearrange themselves and the fiber becomes positively charged.[6] The negatively charged anions in acid-loving dyes, such as cochineal natural dye, are attracted by positively charged amino groups in wool under acidic conditions. Remember the basic principle: opposites attract, likes repel!

A word of pH caution is warranted here. After the dye bonds to the fiber, acid or alkaline modifiers are often used to draw out more of the range of colors developed by some natural dyes.[7] Acidic modifiers tend to make some colors more yellow in tone, and alkaline modifiers can either change colors dramatically or make the color pinker in tone.[8] To retain the modified color, it is best to wash and rinse in solutions with the same pH as the modified dyebath.

In addition to modifiers, the mordants we choose can impact the pH of our dyebaths. Mordants are positively charged metal salts that are sometimes needed to help bind natural-dye molecules to wool fibers. They form a strong bond with the uncharged amino groups, making the dye washfast and lightfast under most conditions.

A common mordant used by natural dyers today is alum, which is often paired with cream of tartar. In *The Art and Science of Natural Dyes,* Joy Boutrup and Catharine Ellis explain that "the presence of an acid, such as cream of tartar, during the mordanting process will slow the absorption of the mordants and assist to level the distribution of the mordant in the textile."[9]

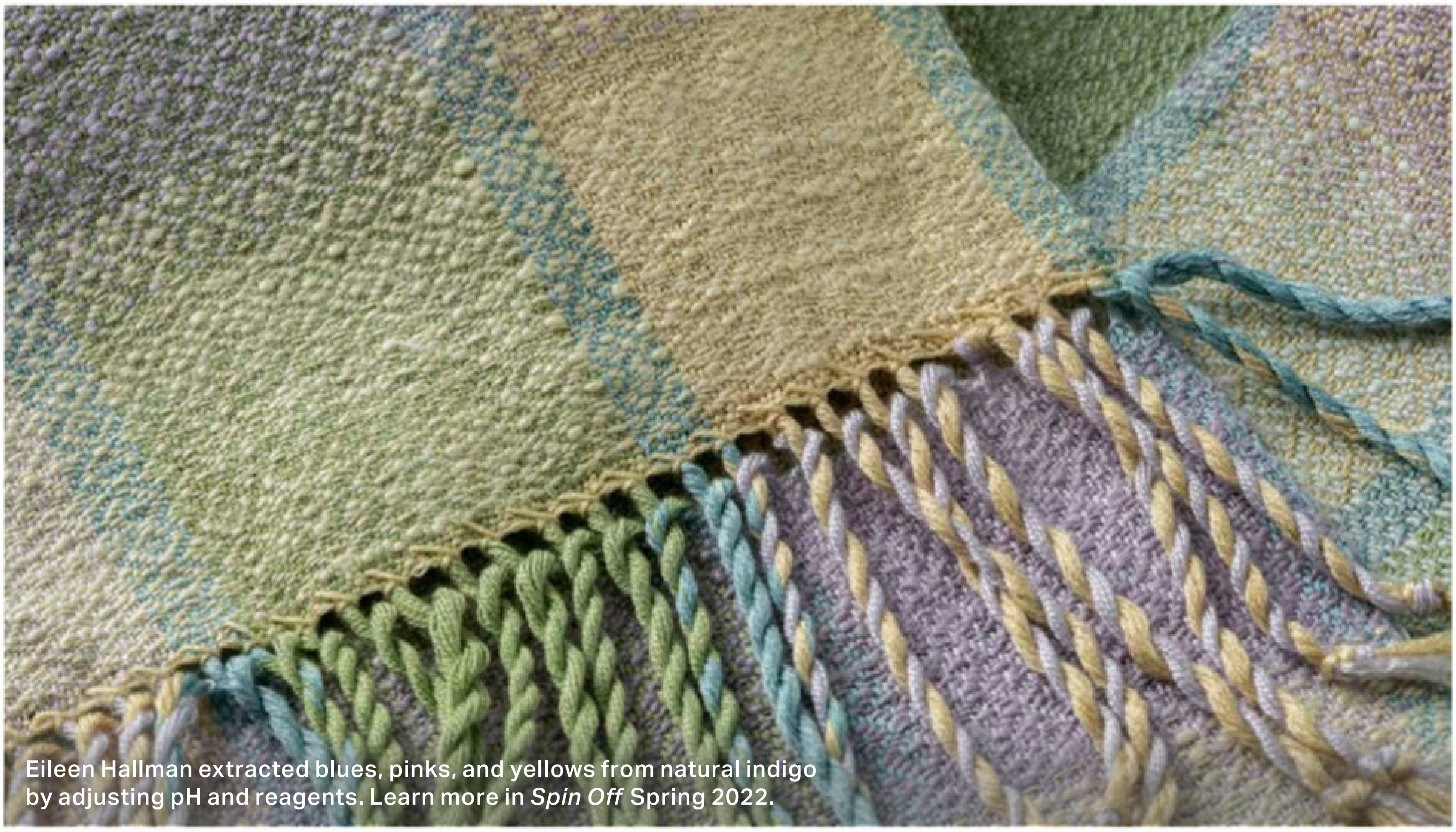
Stale urine has been used as a mordant for thousands of years. As urine (normal pH 4.6–8.0) degrades, the pH climbs as a result of fermentation.[10] In an article for *Smithsonian Magazine,* Mohi Kumar explained how ammonia in stale urine acts as a mordant.[11] Dye molecules embed within a more complex molecule or group of molecules, and the ammonia shell housing the dye binds to the fiber. The dye is visible but is fixed within the fiber by the molecules surrounding it.

Cochineal can be used without a mordant to dye wool, and a dynamic range of colors can be produced by modifying the pH of the dyebath. Acid modifiers such as citric acid will produce a beautiful red, while a purple color can be obtained by adding an alkali modifier such as washing soda.

Lichens, often used as substantive dyes, contain algal and fungal cells living in symbiosis. Lichens that contain orchil (or archil) acids can be steeped in ammonia (often obtained by fermenting urine) to extract reds, magentas, and purples. The addition of alkali to the red bath neutralizes it, and it becomes purple. The addition of acid will change the purple to red.[12]

THE MAGIC OF INDIGO

Vat dyes are particularly sensitive to pH, requiring an alkali bath (which causes reduction) to dissolve the dyestuff and an acidic bath (which causes oxidation)



Eileen Hallman extracted blues, pinks, and yellows from natural indigo by adjusting pH and reagents. Learn more in *Spin Off* Spring 2022.

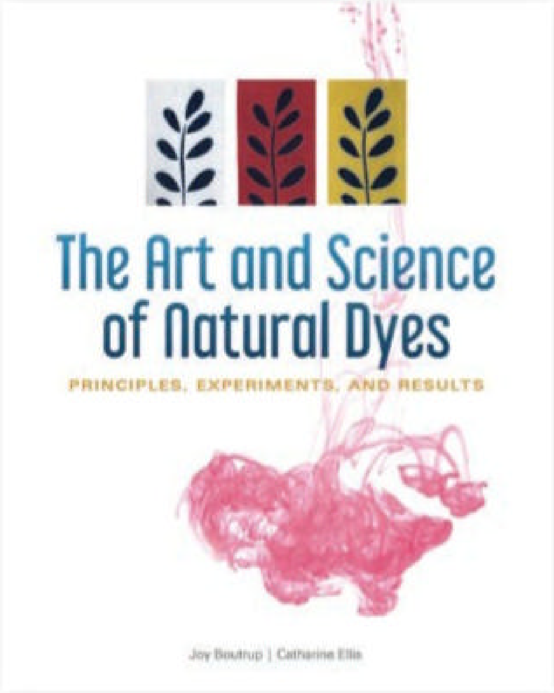
to affix the dye particles to the fiber. This class of dyes includes indigo and the purple obtained from marine snails.[13] Indican, found in the leaves of the indigo plant, is removed from the plant by dissolving it in an alkali solution with a pH of around 8.5 for wool.[14] The fiber is then introduced and the dissolved pigment can penetrate it. When the fiber with the embedded pigment is removed from the vat, the reduction process is reversed. The reintroduction of oxygen changes the fiber from a yellowish color to the insoluble indigo blue. The fiber can then be neutralized by immersing it in a weak acid bath.

HOW TO MEASURE pH

A tool to measure pH is a powerful component in the handspinner's toolbox to help control outcomes. Monitoring pH can also help you troubleshoot specific problems, such as fleeces that are difficult to scour or madder dyepots that yield only orange. Getting the best results from many dyes requires the use of pH testing strips. These strips, also used for water in pools and aquaria, are readily available. There are many brands and types of pH strips and papers available, and you might need to try several to find the one that works best for you and your specific needs. A more accurate pH reading can be obtained from pH meters, which are also readily available.

As we progress along our spinning journey, many of us aim for more control over the whole process. Adding pH testing to your handspinning tool kit is a wise move if you want the outcome of fleece scouring and dyeing to be predictable and consistent. ●

Reading List


The Art and Science of Natural Dyes
PRINCIPLES, EXPERIMENTS, AND RESULTS
Joy Boutrup | Catharine Ellis

The Art and Science of Natural Dyes:
Principles, Experiments, and Results

Joy Boutrup and Catharine Ellis

Atglen, PA: Schiffer, 2018.

Notes

1. Judith MacKenzie McCuin, *The Intentional Spinner: A Holistic Approach to Making Yarn* (Loveland, CO: Interweave Press, 2010), 54.
2. Joy Boutrup and Catharine Ellis, *The Art and Science of Natural Dyes: Principles, Experiments, and Results* (Atglen, PA: Schiffer, 2018), 15.
3. Rain is acidic because it picks up carbon dioxide from the atmosphere. Thus, rainwater can change over time and by location. Robert Balun, "Why Is Rain Naturally Acidic?" Sciencing, sciencing.com/rain-naturally-acidic-6475032.html.
4. Ann Milner, *The Ashford Book of Dyeing: A Fibre-Artists' Guide to the Chemistry of Colour* (Ashburton, New Zealand: Ashford Handicrafts, 2007), 4.
5. Milner, *Ashford Book of Dyeing,* 46.
6. Boutrup and Ellis, *Art and Science of Natural Dyes,* 15.
7. Wendy Feldberg, "Botanical Printing: Art Adventures with Plant Pigments," in *Nature's Colorways,* ed. Linda Ligon and Anne Merrow (Fort Collins, CO: Long Thread Media, 2021), 34.
8. Jenny Dean, *Wild Color: The Complete Guide to Making and Using Natural Dyes,* rev. ed. (New York: Watson-Guptill, 2010), 58–59.
9. Boutrup and Ellis, *Art and Science of Natural Dyes,* 15.
10. "Urine pH Test," The Mount Sinai Hospital, mountsinai.org/health-library/tests/urine-ph-test.
11. Mohi Kumar, "From Gunpowder to Teeth Whitener: The Science Behind Historic Uses of Urine," *Smithsonian Magazine,* August 20, 2013, smithsonianmag.com.
12. Karen Diadick Casselman, *Lichen Dyes: The New Source Book.* (Mineola, NY: Dover, 2001), 44.
13. Boutrup and Ellis, *Art and Science of Natural Dyes,* 27.
14. Vivien Prideaux, *A Handbook of Indigo Dyeing* (Tunbridge Wells, UK: Search Press, 2015), 62–63.

Annamarie Hatcher, PhD in zoology from the University of Western Australia, is a freelance science writer and is studying to be a Master Spinner after more than 45 years of hobby spinning.

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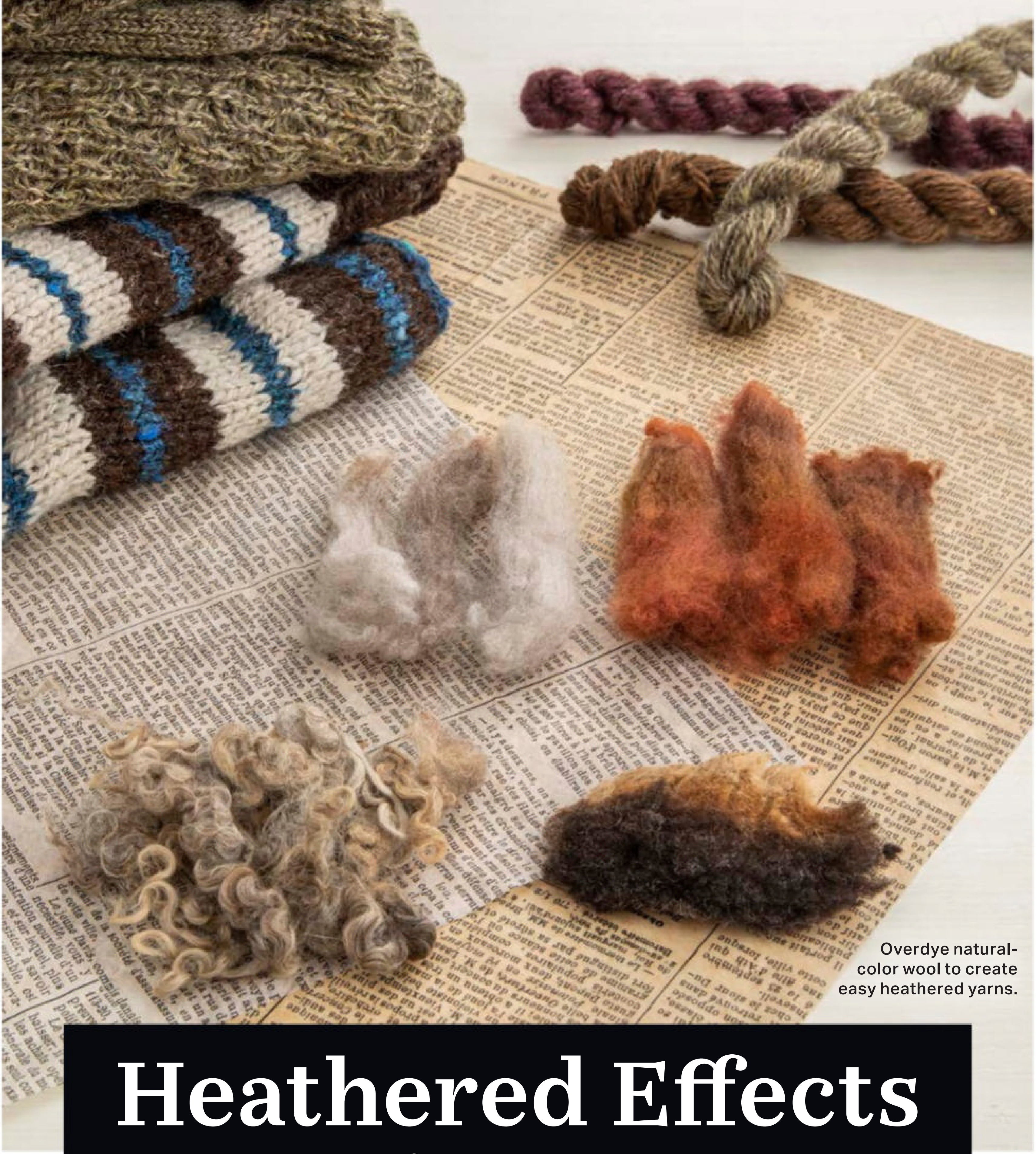


Overdye natural-color wool to create easy heathered yarns.

Photos by Matt Graves unless otherwise noted

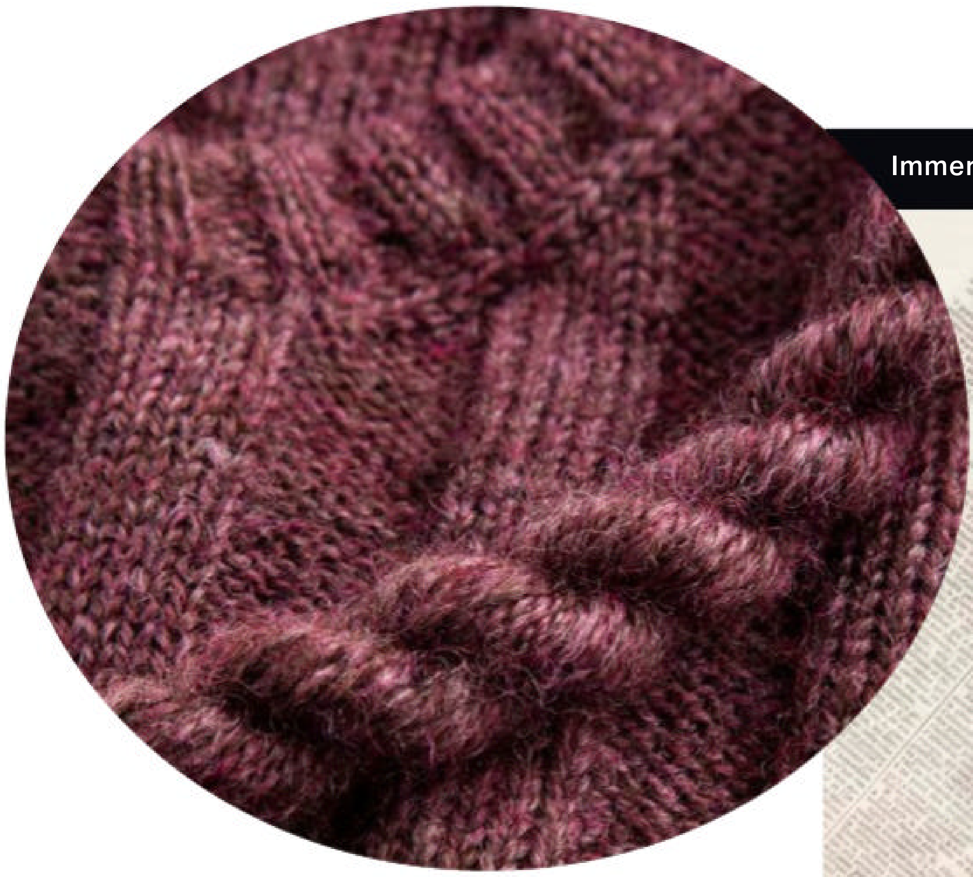
Heathered Effects

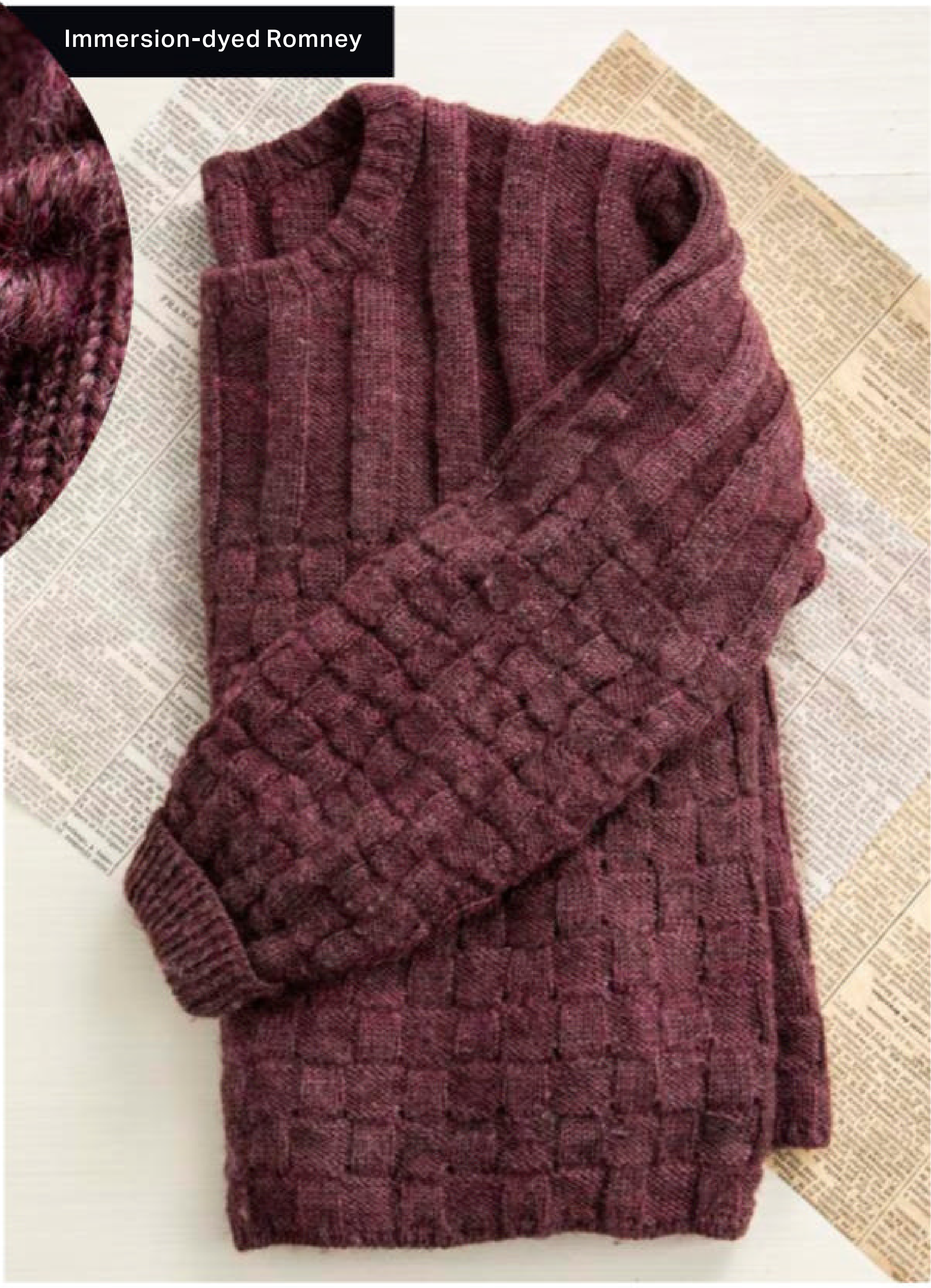
Dye Natural-Color Wool Three Ways

CLAUDINE CELEBUSKI

I'm a big fan of the visual interest and depth of color that heathery tweed effects add to my textiles. There are a lot of ways to create heathered color variations. One approach is to start with white fleece, dye it various colors, and then blend. Another method I've spent time exploring starts with washed natural-color fleeces that are then dyed before carding. The resulting variegation of colors can be close to the rich colors found in nature rather than the sometimes overly intense colors you can get with acid dyes on white and ecru bases.

As a machine knitter focused on designing and creating garments, I enjoy exploring color in combination with interesting knitted surfaces and geometric patterns. I'd like to share three of my garments that combine dyed natural-color wool with knitted textures. Each fleece was dyed using a different approach, and I hope this will inspire your own work.





Immersion-dyed Romney

FUCHSIA SWEATER: IMMERSION DYEING

This sweater started with a dark-brown Romney fleece with heavily bleached tips that I purchased at the New Jersey Sheep and Fiber Festival. The tips were healthy and strong, so rather than cut them off, I decided to take advantage of their ability to soak up color. I scoured the entire fleece and prepared to dye all of it with one color: fuchsia. Immersion dyeing is a great way to create even color on a large amount of fleece.

I prepared a dyepot of fuchsia acid dye in a large, stainless steel lobster pot that I only use for dyeing. After placing the pot on a burner, I added the entire 4 pounds (1.8 kilograms) of fleece. I kept it warm for about an hour, added vinegar, and left it on the stove for another hour.* When I took it off the stove, I left the fleece in the dyepot overnight to exhaust the dye and cool. The dye had struck the sun-damaged tips of the locks nicely and was much less obvious on the darker parts of the locks.

Immersion dyeing can sometimes result in boring, flat color. However, starting with a variegated fleece can add interest to these projects. Because the bleached tips were present throughout the fleece, blending was simple. There was no need to card the wool multiple times to avoid striping.

After carding, I spun the fiber into a fine two-ply yarn, which would show off an interesting knitting pattern. I knitted the sweater on my PASSAP knitting machine using a basketweave pattern inspired by the Korshavn Sweater by Tonje Hodne. The resulting color reminds me of all the shades of purple grapes growing on the vines of my childhood home.

The tips were healthy and strong, so I decided to take advantage of their ability to soak up color. The dye struck the sun-damaged tips of the locks nicely and was less obvious on the darker parts of the locks.

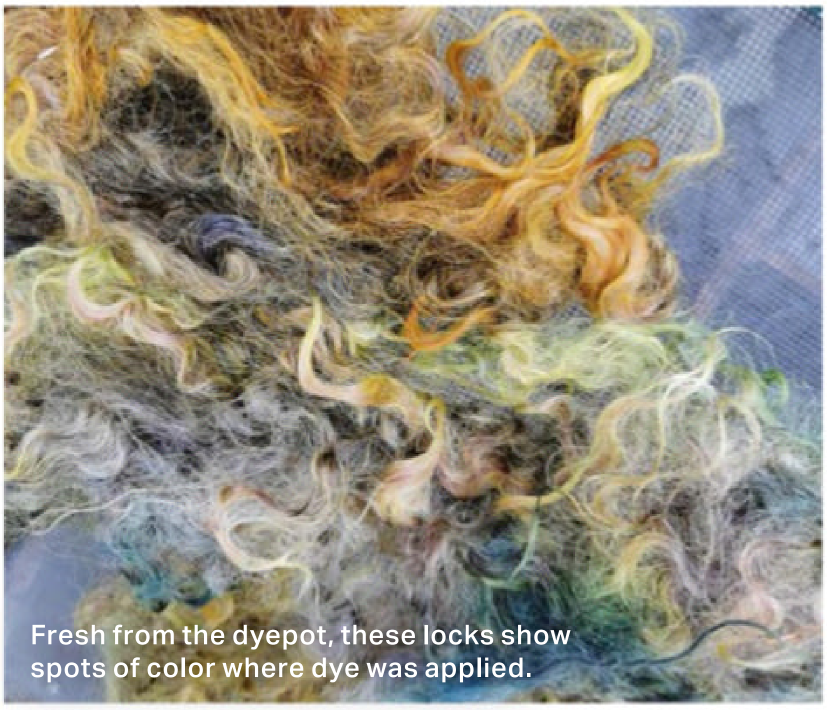
Claudine used low-water immersion and blending with undyed wool to create a mossy tint effect.

MOSS SWEATER: LOW-WATER IMMERSION DYEING

Some projects start with a mystery wool, and this fiber was gifted to me during a friend's de-stash. The variegated gray longwool had a beautiful curl. I wanted more of a tint effect than a strong dye effect, so I planned to dye half the fleece, then blend the dyed and undyed wool together on a drumcarder. Because I wanted a mix of dyed colors, I used low-water immersion dyeing. This method is a good fit when dyeing a large amount of wool several different colors and you want the colors to mix somewhat, resulting in lovely and surprising gradations of color.

I took about 3 pounds (1.4 kilograms) of the washed wool and divided it in half. I took the half destined to

> **I wanted more of a tint effect, so I dyed half the fleece, then blended the dyed and undyed wool together on a drumcarder. To blend the color more evenly, I alternated the dyed and undyed fleece when loading the carder.**



Fresh from the dyepot, these locks show spots of color where dye was applied.

Photo by Claudine Celebuski

Dyed and undyed locks blended on the drumcarder

Photo by Claudine Celebuski

be dyed and placed it in a vinegar and water solution in a microwave-safe container. I sprinkled dye powder in several shades of green and yellow directly on the wool and gently pressed the wool into the solution to distribute the color throughout the solution without mixing too much. I placed the container in the microwave and kept it there for several hours, occasionally turning the microwave on to warm up the wool and dye solution. Then I took the container out and left it overnight to exhaust the dye and cool. After a wash and dry, the dyed fleece was ready to be combined with the undyed natural-color fleece.

I blended the colors together using my drumcarder. Each 2-ounce (57-gram) batt was half undyed fleece and half dyed fleece (using a roughly equal amount of each dyed color). To blend the color more evenly throughout each batt, I alternated the dyed and undyed fleece when loading the carder. There was some variation in color from batt to batt, but I was disinclined to separate the batts, recombine them, and run them all through the carder again. Instead, I split each batt into three equal sections and spun each 4-ounce (113-gram) bobbin using six sections from six different batts.

I plied my singles into a two-ply yarn. This split up the colors nicely, so striping was kept to a minimum in my finished sweater. There's still a bit of striping, though, which is all right with me. I knitted the sweater on my PASSAP knitting machine; the body is a textured tuck stitch, and the sleeves are stockinette.

STRIPED SWEATER: DYEING MULTIPLE COLORS AT ONCE

One of my favorite sheep breeds is the Jacob. With their inordinate number of horns (at least two, but often four or even six), they have the look of a mythical creature. In addition to the horns, they are special to me because their fleece is multicolored. They generally have white and black/brown areas of fleece, and sometimes there is a special hue: a gray/brown referred to as lilac. I get a kick out of making a whole garment from the wool of a single sheep,

Natural-color Jacob white and brown are punctuated by a heathered blue stripe.

Photo by Claudine Celebuski

Ziplock bags are a great way to dye small amounts of multiple colors at once.

Courtesy of Robin Lynde

Hot Lips, a two-horned ewe, and her triplets at Meridian Jacobs

and buying a Jacob fleece gives me the option of using colorwork motifs in my single-sheep garments.

I purchased the wool for this striped sweater at the New Jersey Sheep and Fiber Festival, brought it home, washed it, and dried it as I normally would a new fleece. Then I sorted the wool by color, separating the white from the brown to make the widest stripes in my sweater. To accent these two natural colors, I wanted to create a complex blue stripe by dyeing a blend of the white and brown fleece colors.

To create the blue, I would need to dye both white and brown fleece in several different colors of blue. I first placed a bit of brown wool and white wool together in each of six ziplock bags. Then I created six dye solutions—one at a time—by adding dye powder to hot water, mixing well, and pouring each solution into its own bag with the wool. The bags act like tiny dyepots, allowing me to dye separate colors simultaneously in a small space.

I moved the bags to a plastic container in the microwave and left it for an hour or so. I periodically turned the microwave on for a minute to keep the solution warm. After the first hour, I added vinegar to each bag, swished the contents around to make sure they were mixed, and microwaved them off and on for another hour. I left the wool in the dye solution overnight to exhaust the dye and washed the fleece the next day. After the blue wool was dry, I drumcarded the different blues together. I did not worry about even blending, opting instead to keep bits of the individual colors for a tweed effect. I spun a fairly rustic two-ply yarn, which I knitted in the round on my Brother 230 knitting machine. The finished sweater is delightfully bulky.

To accent these two natural colors, I dyed a blend of the white and brown fleece in several different colors of blue. Then, I drumcarded the different blues together, opting to keep bits of the individual colors for a tweed effect.

GIVE IT A TRY!

Don’t pass up those natural-color fleeces at wool shows and sales! The natural browns and grays that fiber animals produce can go a long way toward deepening and toning down the sometimes overly bright acid-dye colors, shifting these hues from too intense to easily wearable. Natural-color fleeces can have a place front and center in your dyepot and in your spinning projects.

** There are many great brands of acid dye available. Follow each manufacturer’s recommendations for temperature, duration, and reagents.* ●

Claudine Celebuski is a knitter, spinner, and sewing teacher based in New Jersey. Her current obsession is creating clothing using entirely local inputs. She calls herself HomespunCouture on social media.

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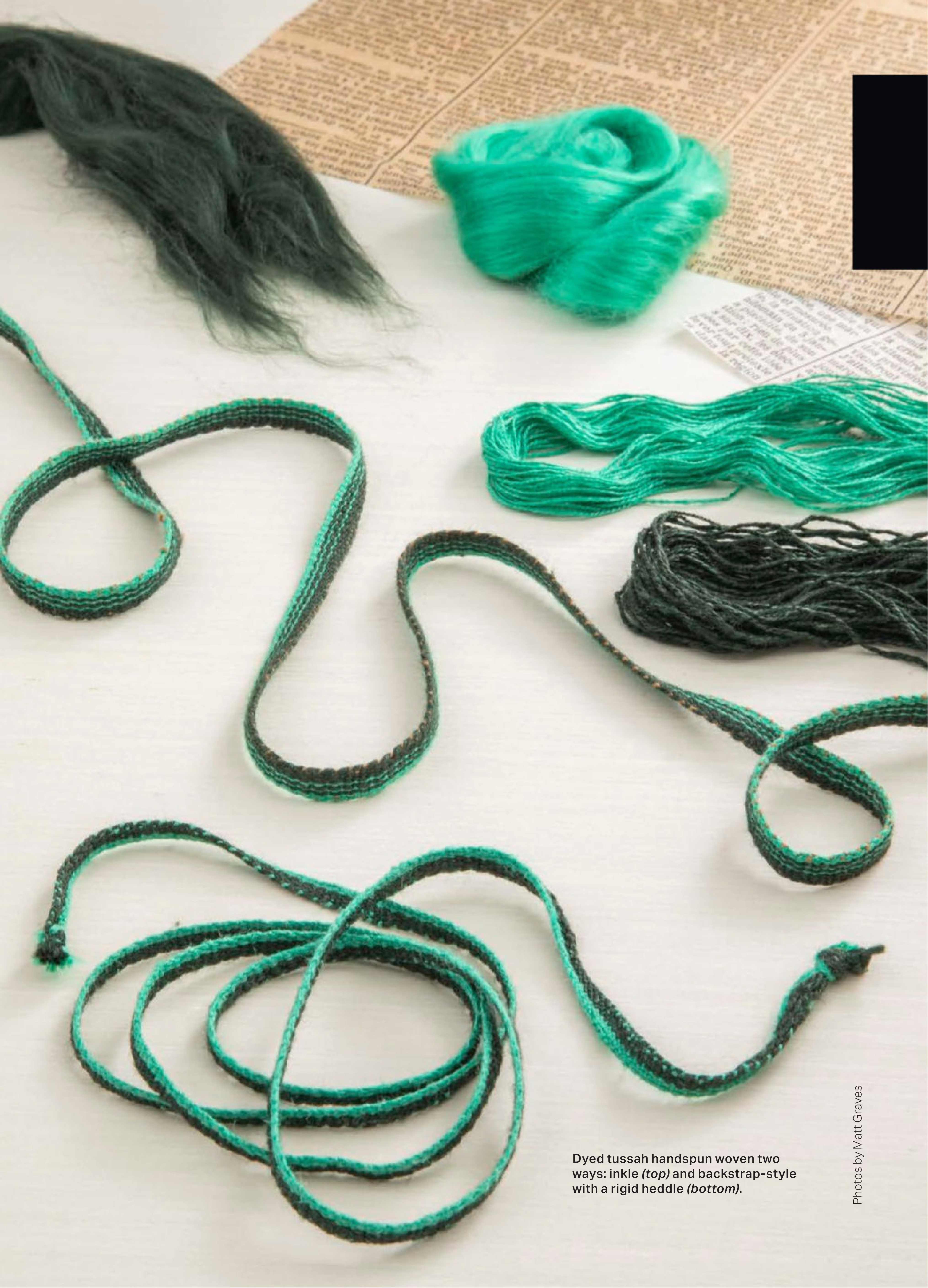


Dyed tussah handspun woven two ways: inkle *(top)* and backstrap-style with a rigid heddle *(bottom)*.

Photos by Matt Graves

Testing Tussah

Two Ways to Spin and Weave a Band

DEVIN HELMEN

Tussah is one of my favorite silks to spin, and it is also a type of silk I recommend to new silk spinners. Tussah, or tassar, is wild silk with a naturally creamy color and a more textured, grippy feel than fine, bright-white cultivated silk. In the hand, tussah is not as slippery as cultivated silk, which makes it more forgiving to the beginning silk spinner.

While I prefer the character of wild silks, a weaver friend prefers the full shine and drape of cultivated silk and describes tussah yarns as more cotton-like. I find the hand of my tussah yarns to be more like a midway point between cotton and silk—tussah has much of the shine and softness of cultivated silks, but it clings to itself while spinning and does have more of a matte feel to it, similar to cotton. Tussah handspun often feels like it has more loft and less density, which can make it a better fit for some textile uses.

Tussah, also called tassar, is a wild silk.

How would tussah hold up to the high tension and abrasion of warp-faced bandweaving, such as inkle and tablet weaving?

Most importantly to me, tussah is the easiest for me to spin with my normal semi-supported long draw from the fold. I pull off a section of silk combed top about a handspan in length, fold it in half, and spin from the folded place. I let the twist into the drafting triangle to help form the yarn, but I also manage and smooth the yarn as I draft. I learned to spin silk top this way from Sara Lamb (see Resources), and I still spin it long draw from the fold today. Not only does this feel easier on my body but it is fast for me and makes a yarn I like. And, as Sara Lamb demonstrated in her many samples, I do not see any diminution of the shine or function of the yarn, even when spinning cultivated silk.

Every fiber has pros and cons, and our opinions as spinners often depend on what we are using our yarns to create. Knitting yarns and weaving yarns need to perform in different ways. However, I also think it is important for us to question our assumptions, create samples, and do the work.

PUTTING TUSSAH TO THE TEST

While discussing silk-drafting techniques with friends, two questions came up: “How would tussah hold up to the high tension and abrasion of warp-faced bandweaving, such as inkle and tablet weaving?” and “Does drafting technique impact tussah’s success in bandweaving?” I decided to test it out.

I pulled some tussah top out of my stash in two different colors—Millet (a blue-green) and Fir (a very dark green)—both of which I got many years ago from

> **Some friends thought the yarn spun with long draw would not hold up as well to the high tension and abrasion of an inkle loom. I did not find this to be a problem; it was my short-draw yarn that caused abrasion and sticking.**

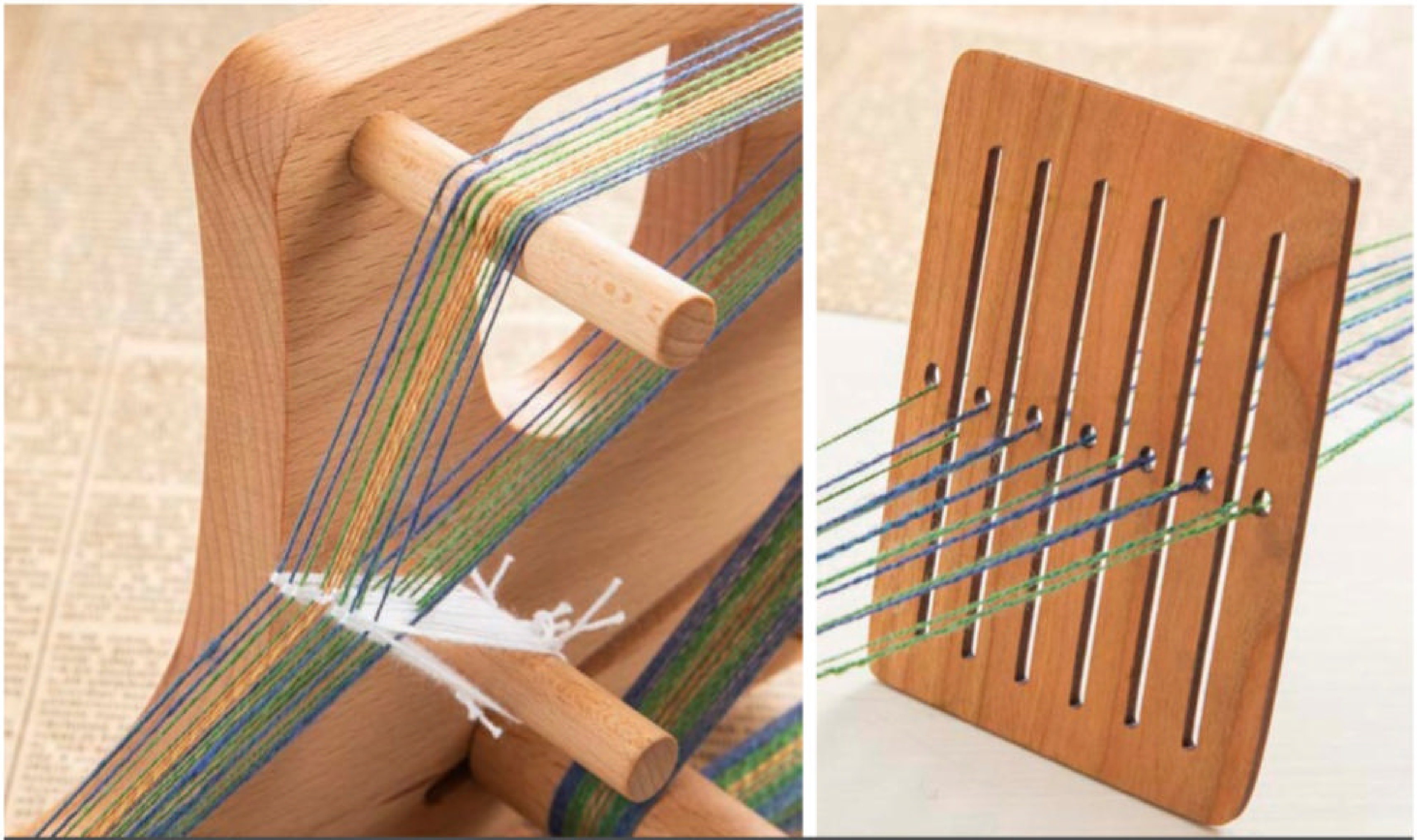
Opulent Fibers. I spun the blue-green silk in my normal way (semi-supported long draw from the fold) and then plied it. The resulting yarn was what I expected—my standard fine, evenly spun two-ply.

Next, I spun the dark green silk with a short draw from the end of the silk top, making sure that the fibers were aligned, and then plied. As I spun the singles, I found the drafting to be annoying and difficult, largely because this is not my preferred and practiced way of spinning. This silk needed more attention and effort to keep the fibers aligned and prevent unwanted slippage. I ended up with a less evenly spun and slightly thicker two-ply yarn. I skeined both yarns, soaked them in warm, soapy water, rinsed in cold water, wrung them out, and hung them unweighted to dry.

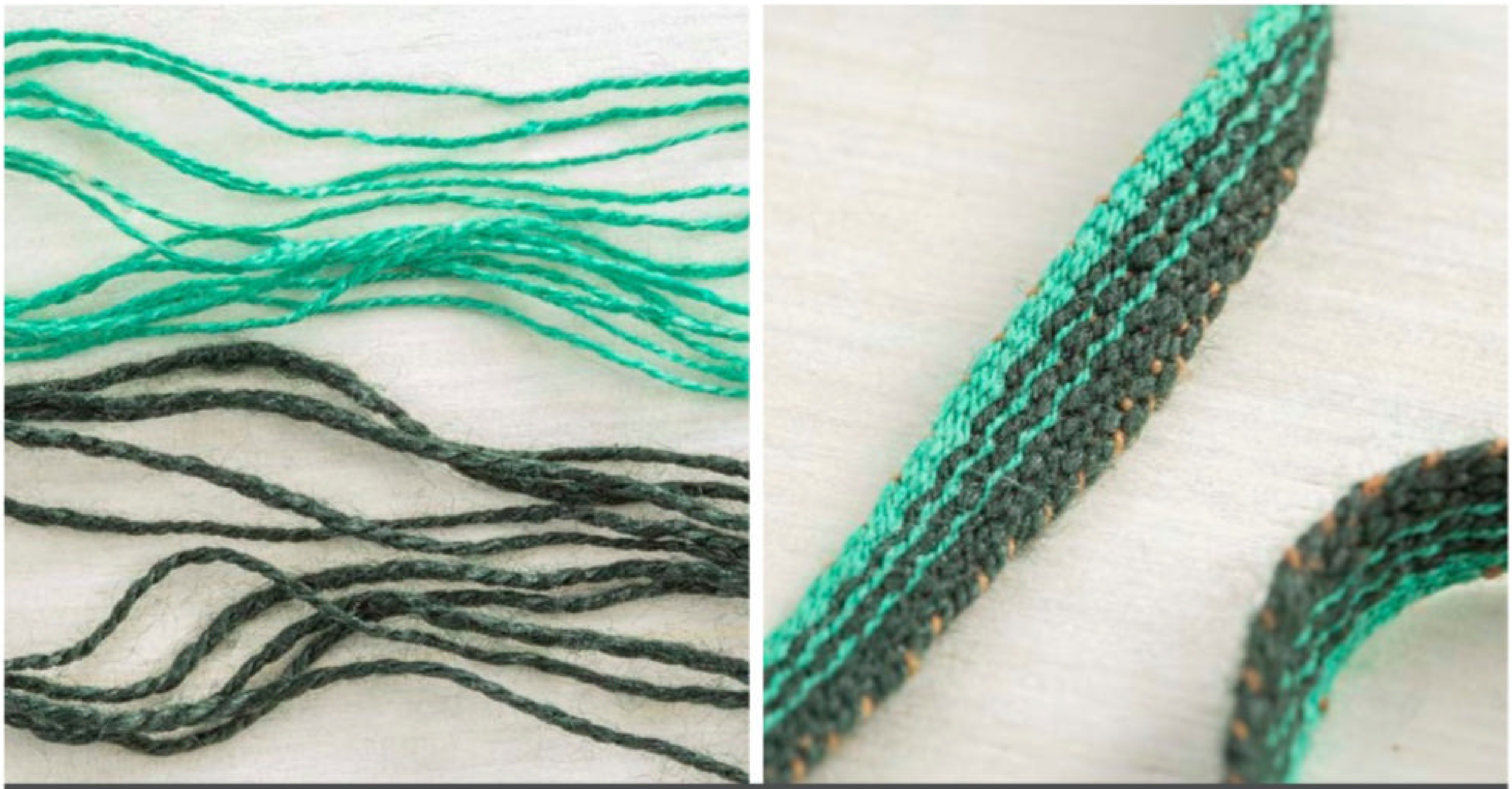
I believe the differences in the yarns are due mostly to my comfort with one drafting style over another. I prefer the look (and the spinning experience) of the long-draw yarn, but how would the two compare in use?

I warped an inkle loom with a narrow band using the two yarns and wove that sample. During the original discussion of drafting techniques, some friends thought the yarn spun with long draw would not hold up as well to the high tension and abrasion of an inkle loom. I did not find this to be a problem, and, if anything, it was my short-draw yarn spun from the end that caused abrasion and sticking.

I made another sample, this time using a small rigid heddle and a backstrap weaving technique. This setup places less constant tension on the warp and holds the warp threads in a spaced alignment. This creates less of the abrasion that can occur on an inkle loom where the threads are in closer contact. In this



Inkle looms *(left)* typically function by anchoring every other thread with a heddle, keeping the warp closely spaced. Rigid heddles used with backstrap weaving *(right)* space the warp threads through a series of slots and holes. Shown here: Treenway Silks dyed tussah (see page 58), Ashford Inklette, and Dancing Goats cherry rigid heddle.



Devin used two spinning techniques to create samples. The light-green sample was spun with a semi-supported long draw from the fold, and the dark-green sample was spun with a short draw from the tips of the combed top.

second sample, I did not notice an issue in how the two yarns acted as I wove them.

RESULTS

My conclusion is that there is no difference in how tussah silk yarns act during weaving based on drafting technique; what matters is the spinning itself. I have spun many hundreds of yards of silk using my preferred technique, and that is what I am most comfortable with. Short draw from the end of the top is not something I have practiced a lot, nor is it something I find physically comfortable; it creates too much tension in my hands and takes too much attention to make a smooth, even yarn. Even when paying close attention, I did not produce a yarn I was particularly happy with. Both yarns, though, wove up well and did not create any real problems. This reinforces my belief that, for most (if not all) spinning questions, the answer is to try it for yourself.

I will continue to spin tussah silk and all silk combed tops in the way that is most comfortable and familiar to me—supported long draw from the fold. I know this will produce a yarn that I can use for whatever purpose I want and will provide me with a good spinning experience. I can be confident in this because I did the experiment.

There is no difference in how tussah silk yarns act during weaving based on drafting technique; what matters is the spinning itself.

Ideas about "proper technique" can become enshrined as fact, but I find spinning to be highly personal and dependent on the spinners themselves. What might be a fact for one spinner will not be for all spinners. Experiment, test your yarns, and make up your own mind. The best teacher for how a yarn will act is real-life experience. ●

Curious about weaving colorful handspun silk ribbons with a rigid heddle? Find Devin's how-to project on page 58.

Resources

Lamb, Sara. *Spinning Silk: Sensuous, Successful Yarns from Luxurious Silk*. Video. learn.longthreadmedia.com.

Selk, Karen. *In Search of Wild Silk: Exploring a Village Industry in the Jungles of India*. Atglen, PA: Schiffer Craft, 2023.

Devin Helmen has been immersed in fiber since learning to spin at age eight. They spin, knit, and weave in beautiful Minnesota. Devin enjoys writing and teaching about fiber arts and has a passion for spindles and everyday textiles. They blog, intermittently, at afewgreenfigs.blogspot.com.

Photos by Matt Graves

Weave your laces! *Shown:* Ashford Inklette and Treenway Silks dyed tussah combed tops

Northwoods Handspun Tussah Shoelaces

DEVIN HELMEN

Put your beautiful handspun to work! This project lets you showcase variegated dyed silk tops without needing to spin large amounts or worry about how best to spin the silk to capture color successions. When I found this tussah silk top from Treenway Silks, I loved that the colors reminded me of the Northwoods of Minnesota—the blue of the lakes and skies and the greens of the white and red pines.

SPINNING NOTES

I unrolled the dyed tussah combed top and pulled it apart into three piles: one that was a deep blue (Color A), one that was a bright and clear green (Color B), and one that combined both blue and green into a somewhat teal shade (Color C). No division of variegated roving or top will ever be exact, especially with such a high-quality, long-staple silk top. I don't worry too much about precision, and I'm happy as long as the majority of each pile is of the specific color. Once spun, I notice the small variations more as an interesting heathered effect rather than a jarring splotch, especially in plied yarn. The variegation is what adds so much depth to this kind of project.

I spun each color separately, but unlike my sample bands (see page 54), I exclusively used a semi-supported long draw from the fold. This technique is smooth and comfortable to spin on my HansenCrafts miniSpinner Pro using the lace flyer and medium-high speed. I plied on the same spinner with the same settings.

I aimed for a very fine two-ply and spun with high twist. I plied each color on itself and ended up with three small skeins of bright, silky yarn. I washed them in warm, soapy water and then rinsed and repeated to make sure all dye was washed out. I then hung the skeins up to dry unweighted.

I wound the dried yarn into balls and thought about how I wanted to use the three colors. I decided to have a border of the blue around the green to echo the trees standing between a lake and the sky. The middle shade would work well as weft, harmonizing with both of the other colors and barely showing at the selvedge edge.

MATERIALS

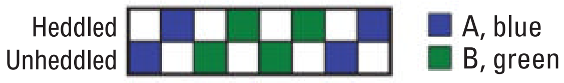
Fiber Salt Spring Island handpainted silk top (100% tussah silk; Treenway Silks), Walker Hook, 0.9 oz (25 g).

Yarns ***Warp:*** 2-ply laceweight (3,900 ypp; 26 wpi), blue (color A), 10 yd; 2-ply laceweight (4,400 ypp; 32 wpi), green (color B), 10 yd. ***Weft:*** 2-ply laceweight (4,400 ypp; 30 wpi), teal (color C), 4 yd.

Devin's laces are about ⅛" wide.

This pattern is easily woven on a backstrap-style rigid heddle, too. *Shown:* Dancing Goats 13-end rigid heddle in cherry and Treenway Silks tussah top in Walker Hook

Inkle draft



Heddled		🟦		🟩		🟩		🟦
Unheddled	🟦		🟩		🟩		🟦	

🟦 A, blue
🟩 B, green

Read inkle drafts from left to right, as they are threaded.

Equipment Inkle loom, 4 string heddles; belt shuttle.Note: a rigid heddle can be used in place of an inkle loom.

Other Supplies Packing tape to make aglets to secure the ends of the shoelaces.

Structure Warp-faced plain weave.

Warp 8 ends 102" long (allows 2" for take-up, 10" for loom waste).

Setts ***Warp:*** about 64 epi. ***Weft:*** 22 ppi.

Dimensions ***Width:*** ⅛" (3 mm). ***Woven length:*** (measured under tension on the loom) 90". ***Finished size:*** ⅛" × 88" before cutting into two shoelaces.

INSTRUCTIONS

1 Wind a warp of 8 ends 102" long on your inkle loom following the draft.

2 Wind the shuttle with 4 yd of weft (Color C).

3 Leaving a tail 6" long, begin weaving, pulling the first few picks in tightly to establish the width of the shoelace, and beat firmly. Continue weaving in plain weave for the usable length of the warp. Remove the band from the loom.

4 Knot each end of the band to keep the loose warp ends secure. Wet-finish by washing in warm, soapy water, rinse, and hang the band to dry. Once dry, press with an iron on the silk setting.

FINISHING

Determine the desired length of the shoelaces and then cut two from the band. Cut a 1" square of clear packing tape and carefully roll it tightly around each cut end of each shoelace; this will act as an aglet to secure the cut end and ensure easy lacing. ●

Devin Helmen (They/Them) has been immersed in fiber since learning to spin at age eight. They spin, knit, and weave in beautiful Minnesota. Devin enjoys writing and teaching about fiber arts and has a passion for spindles and everyday textiles. Their focus is on making useful textiles from natural materials in a way that is informed by history. They blog, intermittently, at afewgreenfigs.blogspot.com.

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long thread
MEDIA

Photos by Matt Graves

Can garneted yarn be used as warp? Jaya put it to the test.

Garneted Tweeds

Reusing Thrums for Eco-Friendly Palettes

JAYA SRIKRISHNAN

***In Judith MacKenzie's video** Spinner's Color Toolbox* (see Resources), she demonstrates garneting—the process of turning yarn back into fiber. Judith cuts yarn into pieces and uses her handcards to open up the fibers, making them suitable for blending and spinning. Judith discusses this process as a way to create unique handspun yarns for weft or for knitting. It made me wonder: Could I garnet my thrums and high-end yarn leftovers?

As a spinner, I like using natural fibers, some of which are quite expensive. Being naturally frugal by nature, and also concerned about the waste that I generate, I don't throw any fiber or yarn out. I have many zipper bags containing small balls of yarn and thrums. The yarn is from knitting, the thrums are from weaving. I'm always looking for ways to use these leftovers.

Last spring, I volunteered to spin the warp for a fleece-to-shawl team. As is often the case in a fleece-to-shawl competition, teams plan their projects and warp their looms prior to the competition day. Warp yarn must be relatively smooth to go through the heddles and reed of a loom. Especially with the time constraints of a competition, the warp should be strong to withstand the tension placed on it during the weaving. I started thinking about Judith's garneting demo and decided to use this technique to make a tweedy yarn suitable for warp. A challenge, you say? I love challenges!

THE PROCESS

First, I selected my materials. Some washed, dark-brown Finn fleece would make a good background for my tweed. To add flecks of color and texture to the yarn without compromising its function as warp, I selected two sets of thrums and some leftover Shetland jumper-weight yarns in colors that coordinated with my thrums. One set of thrums was pure mohair, spun by itself without a binder. The second set was handspun cashmere/silk and wool/silk that I had used with commercial silk to weave scarves.

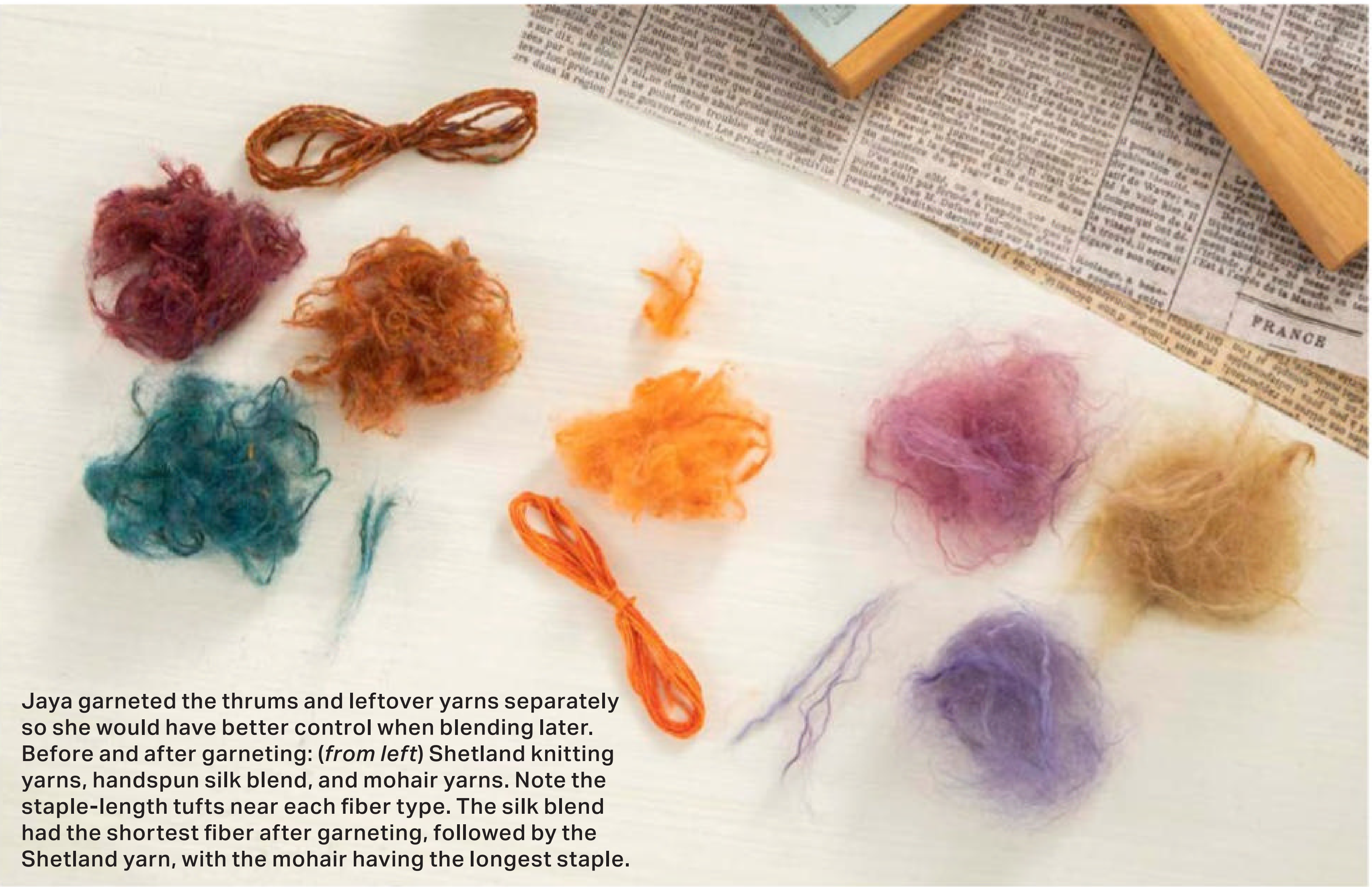
To provide freedom of design to the team's weaver, I decided to spin three sets of yarn. All three would use the same brown wool base, but they would have different colors of garneted tweed. I selected yarns and thrums for three palettes: teal/purple, yellow/orange, and red/pink.

One set of thrums was pure mohair, spun by itself without a binder. The second set was handspun cashmere/silk and wool/silk that I had used to weave scarves.

As I divided the thrums and leftovers into the three palettes, I kept the individual types of yarn separate to provide more blending options later. I created nine containers of add-in fibers, three each from the three sets of thrums/yarns I had selected for garneting.

Sampling

I started with a sample skein to check out the process. After cutting the yarns into 2- to 3-inch lengths, I



Jaya garneted the thrums and leftover yarns separately so she would have better control when blending later. Before and after garneting: (*from left*) Shetland knitting yarns, handspun silk blend, and mohair yarns. Note the staple-length tufts near each fiber type. The silk blend had the shortest fiber after garneting, followed by the Shetland yarn, with the mohair having the longest staple.

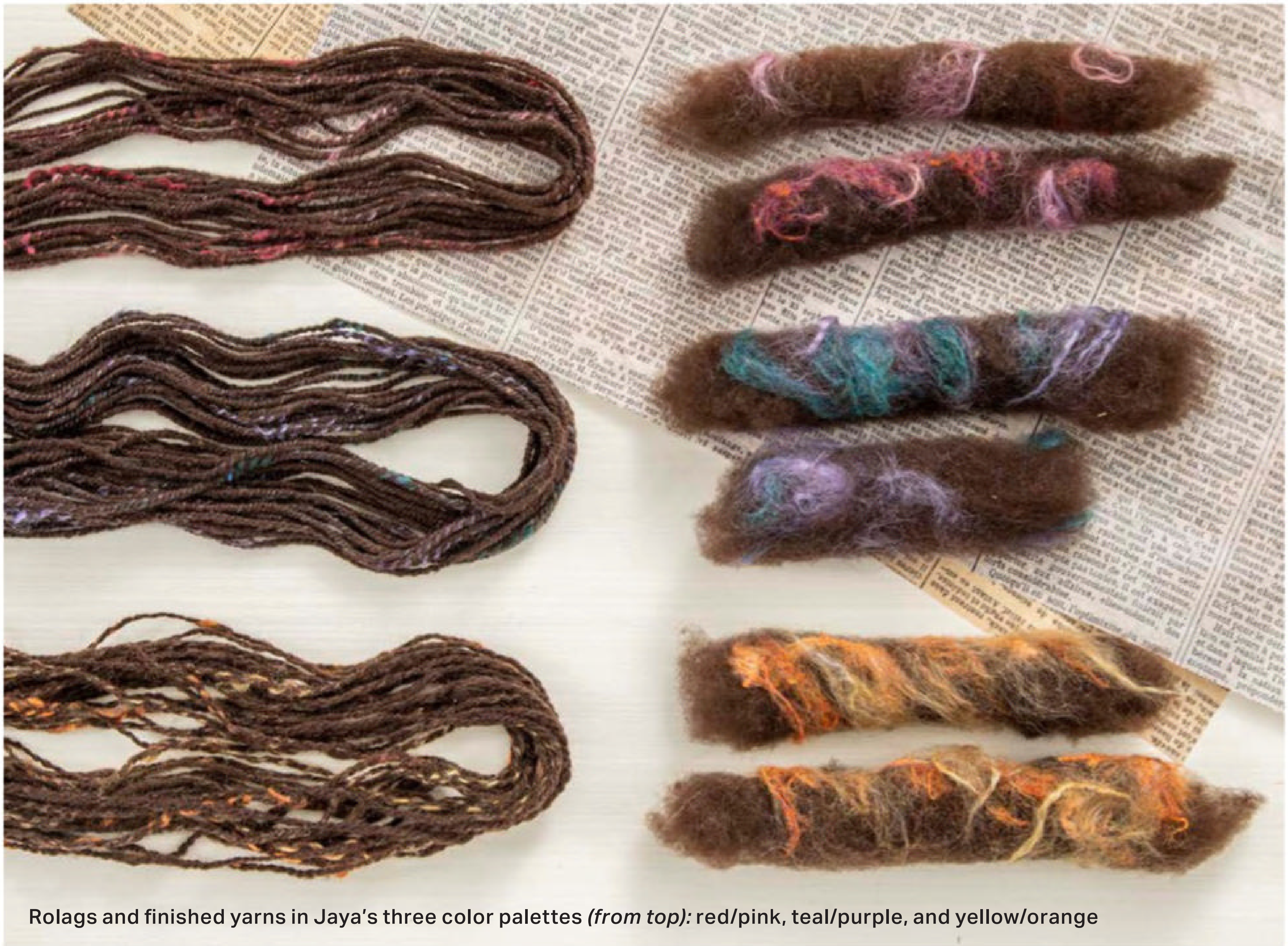
garneted them with handcards until they were mostly fiber again. I then carded the Finn, blended some of each of the add-in fibers in the yellow and orange palette into the final carding step, and made rolags. I didn't want to blend the add-ins too much with the Finn. The rolags spun very easily and I got a good, strong singles yarn. Having tested the process, I moved to my Louet Standard drumcarder.

After carding the Finn fiber until I had a lofty, open batt, I fluffed the garneted add-ins with my fingers and placed them directly on the drum, as I do when creating textured art yarns. However, as I spun this first skein, I learned a few lessons and tweaked my process. The add-ins placed on the drum came to the drafting triangle in big clumps, creating a more textured yarn than I wanted. I also had to ensure that I included some of the Finn in each draft. The mohair was very strong, but the other fiber add-ins came apart if they were spun by themselves. Additionally, I had put far too much of the add-in fiber into this first batt. I had to ply it with a Finn-only singles to make a smoother and stronger yarn.

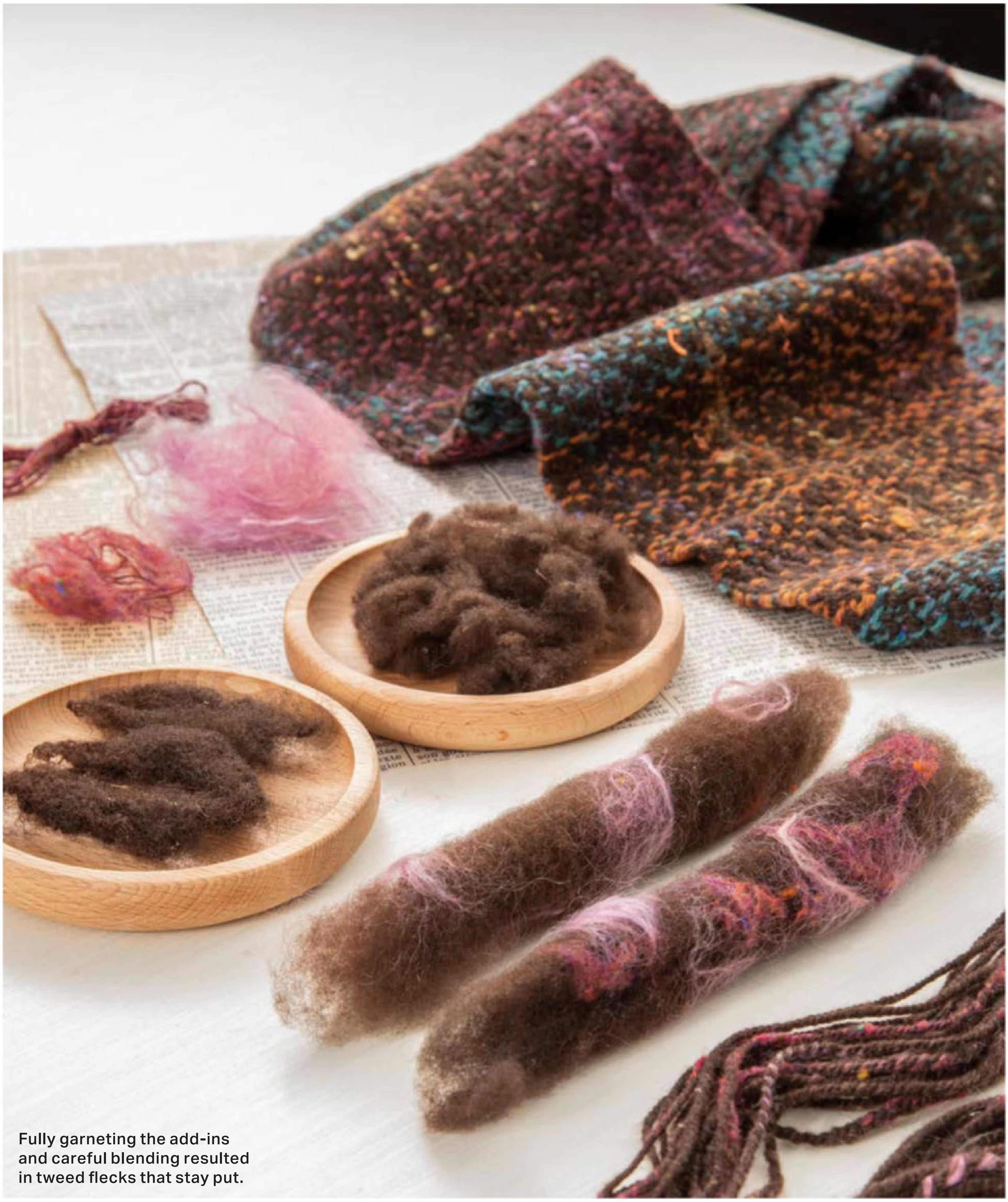
Despite some of the challenges that I discovered while spinning this initial experiment, the team liked this sample skein; I was good to proceed.

What's a thrum?

Knitters often know thrums as short tufts of unspun fiber that can be incorporated into a knitted fabric, creating a squishy pile inside a mitten, for example. Weavers more often use the term thrum when referring to loom waste. When woven cloth is cut off the loom, some warp remains unwoven. Weavers often keep this unwoven warp to incorporate into other projects.



Rolags and finished yarns in Jaya's three color palettes *(from top):* red/pink, teal/purple, and yellow/orange



Fully garneting the add-ins and careful blending resulted in tweed flecks that stay put.

THE MODIFIED PROCESS

In making subsequent batts, I layered the batt in the final carding step by alternating layers of Finn with layers of each of the sets of fibers: handspun silk blend, mohair, Shetland. I also ran the fibers through the feed tray with the previous layer of Finn so they opened up a bit more than with my hands alone.

I changed my spinning process from a pure long draw to a short-backward draw when I came to an add-in, allowing me to draft out clumps and ensure some Finn was also drafted at the same time. Occasionally, I had to move the add-in to be able to draft the Finn in parallel.

Along the way, I learned that the thrums and left-over yarns had to be fully opened up. If there was a

Thrums and leftovers garneted back into fiber add color and texture to handspun yarns without sacrificing smoothness and strength.

length of ungarneted yarn mixed in with the fiber, it could be drafted out smoothly, but it took time. Regardless of the length that I cut the yarns, once garneted using my handcards, they reverted to their original staple length (or shorter), so altering the cut yarn length had no effect. I was aiming for a DK yarn, which can only take a certain amount of twist before it becomes overspun. A fine yarn could have handled the greater amount of twist that those short fibers needed to hold together to make a strong yarn, but my DK-weight yarn depended upon the presence of the Finn to perform as a successful warp.

I continued making adjustments and reduced the amount of add-ins from the second batt onward so I could ply two tweed singles and still get a relatively smooth yarn. I didn't weigh or measure as I worked, creating the blends purely by visual appeal.

Based on my carder's capacity, each skein was 2 ounces in weight and 70 to 80 yards of a sport- to DK-weight yarn. I made nine skeins in all, three in each of the palettes so that the weaver had complete freedom in designing the warp. We used about two-thirds of the yarn in the competition. The team was awarded a second-place ribbon. The weaver said she had no problems with the warp sticking in the heddles or the reed. Success!

Jaya used the remaining yarn from the competition to create the scarf shown on page 65.

THE CONCLUSION

With care, it is possible to make a warp yarn with thrums and leftovers. For spinners who carefully select the fiber they use and produce lovely handspun yarns, it is a great way to ensure that every last bit of that precious fiber and handspun yarn is used. Additionally, luxury yarns don't have to be wasted. They don't have to be relegated to tying handspun skeins or weaving in the Japanese *zanshi* style where they are knotted together and used for weft only.

Thrums and leftovers garneted back into fiber add color and texture to handspun yarns without sacrificing smoothness and strength. These add-ins can increase the visual interest of natural-color fibers. The resulting yarns are suitable for any application and do not need to be coddled.

At the end of this challenge, I wove a scarf from yarn leftover from the competition. I cut the scarf made with garneted thrums off the loom, collected the new thrums, and put them into a bag with other leftover thrums to be used again in the future. The cycle continues. ●

Resources

MacKenzie, Judith. *Spinner's Color Toolbox: How to Spin Colorful Textured Yarns.* Video. learn.longthreadmedia.com/courses/spinners-color-toolbox.

Jaya Srikrishnan is a knitter, spinner, and weaver. She loves to try new things and has fun challenging herself in her creative process. Her designs have been published in knitting magazines, and she teaches knitting at various venues.

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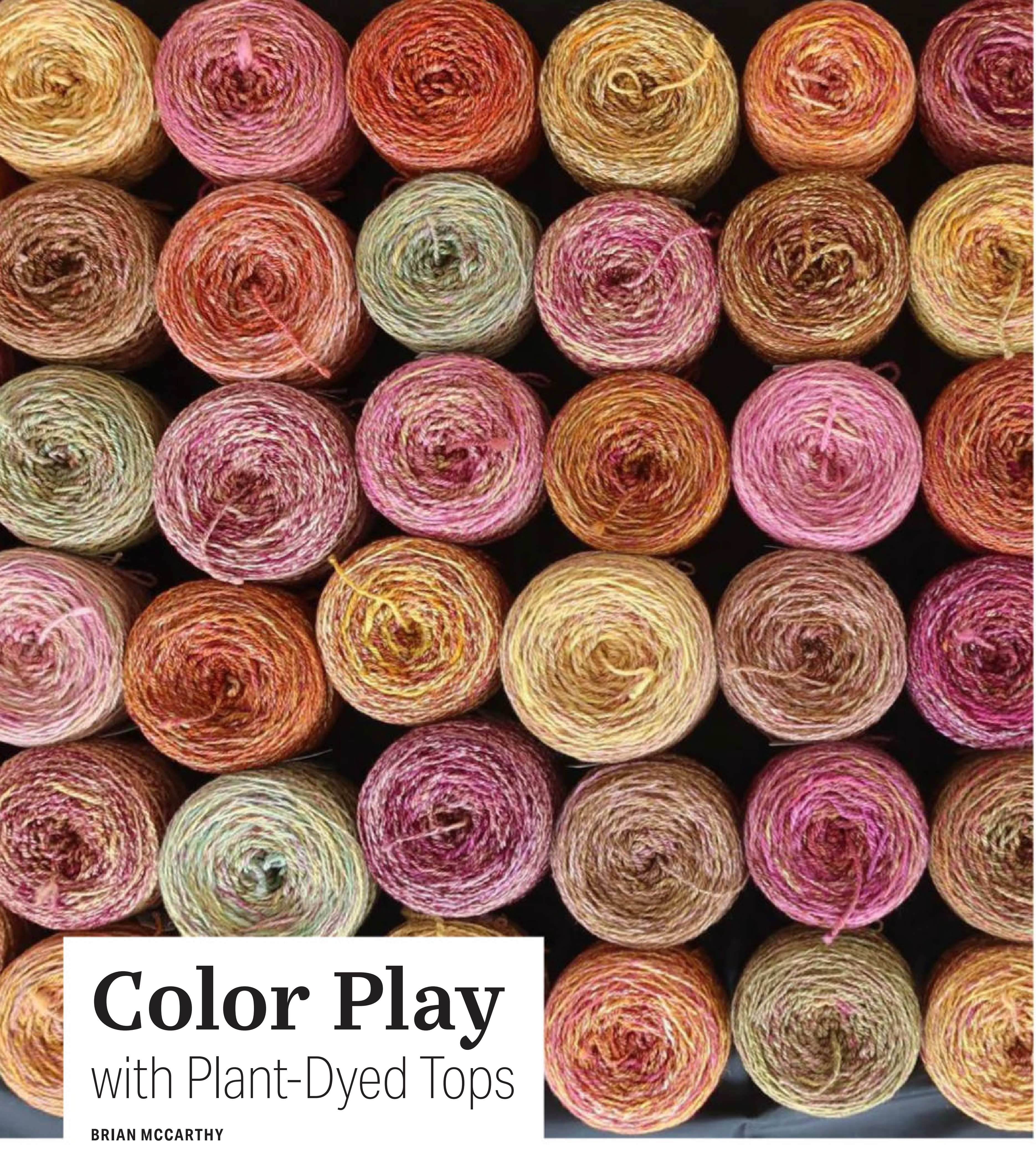


Photos by Brian McCarthy

Color Play

with Plant-Dyed Tops

BRIAN MCCARTHY

As is often the case, this fiber endeavor began as the conclusion of another. My article in *Spin Off* Winter 2019, “Natural Dyeing, Navajo Plying, and the Australian Outback,” ends with a note that after seeing five colorful handspun afghans created with Australian natural dyes, several fellow members of the Berry Spinners and Weavers volunteered to collect natural materials for my future dyepots and color explorations.

The group collected a wonderful range of materials, including orange bracket fungus, yellow mushrooms, hairy she-oak needles, eucalyptus resin, bubble seaweed, and a range of lichens. My curiosity did not wane about what colors might emerge from any plant material that I suspected could be promising. I was also anxious to see if plants that had previously produced rewarding color would give a repeat performance. Some 140 dye extractions later, I had generated more

> **I decided that each skein-size bundle of tops would have an ammonia-extracted color component, the idea being that this common element would create some sort of color harmony connecting all the skeins produced.**

than 7 kilograms (15 pounds) of Merino wool tops representing colors of the Australian landscape.

The dominant colors in the 7 kilos of tops were the ammonia-extracted shades of pink, purple, puce, and mauve from various lichens, along with strong russets, yellows, browns, and greens extracted by boiling plant material in water. There were also many pastel and harder-to-classify colors that could variously be described as buff, taupe, sand, beige, bisque, bone, champagne, eggshell, ecru, fawn, flax, linen, seashell, wheat, oatmeal, biscuit, camel, or off-white.

PREPARING THE DYED TOPS

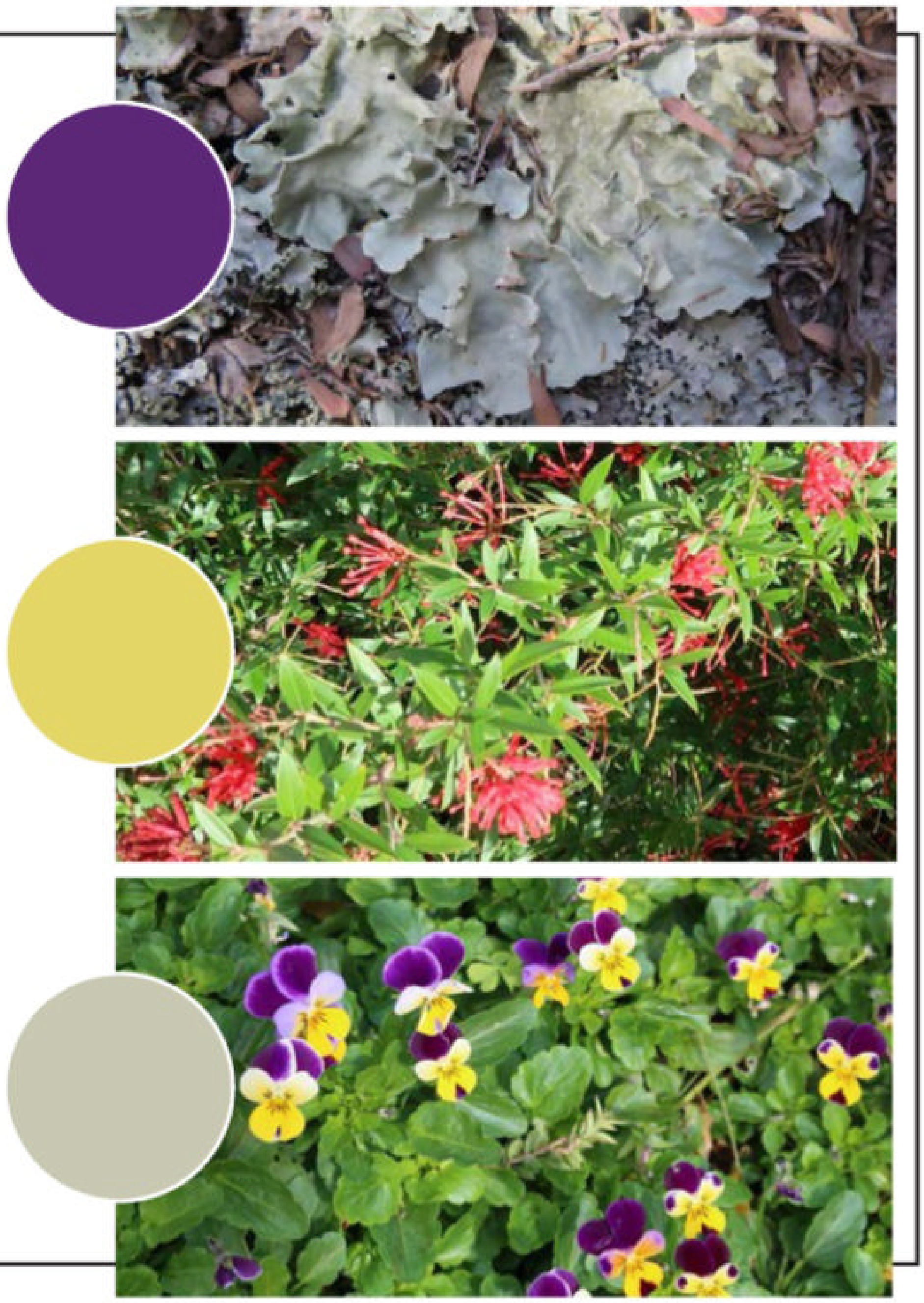
There are a lot of ways to play with such a large set of dyed wools, but if this mass of material was going to be spun, it had to be organized somehow. I wanted to create skeins that contained a mix of colors, so I needed to prepare bundles of fiber that, once spun and plied, would fit on one Majacraft spinning wheel bobbin. My fiber bundles and the resulting three-ply skeins would be roughly 100 grams (3½ ounces).

On a whim, I decided that each skein-size bundle of tops would have an ammonia-extracted color

Dye Surprises

I was often intrigued by the wild difference between the color of the raw plant material and the color of the dye it produced. I decided to take a photo of a couple of dyed tops whose color bore no resemblance to that of the plant it had come from: a vivid purple from a very unassuming gray lichen and a hi-vis yellow derived from the leaves, twigs, and red flowers of a *Grevillea* shrub my wife had pruned in our garden.

It happened that, as I was taking those photos, several clumps of self-sown heartsease (Johnny-jump-ups) in the garden background caught my eye. The flowers had almost identical colors to those produced by the lichen and *Grevillea*-dyed tops, so I was interested to see what a pot full of leaves and flowers from a few of those plants would produce. I found myself with a wry smile on my face when it turned out that the only color yielded by those vivid purple and yellow flowers was a very washed-out, vaguely green cream.



From top: **lichen (probably *Parmotrema tinctorum*) produced violet purple, *Grevillea* produced bright yellow, and vibrant heartsease (*Viola tricolor*) produced almost no color.**

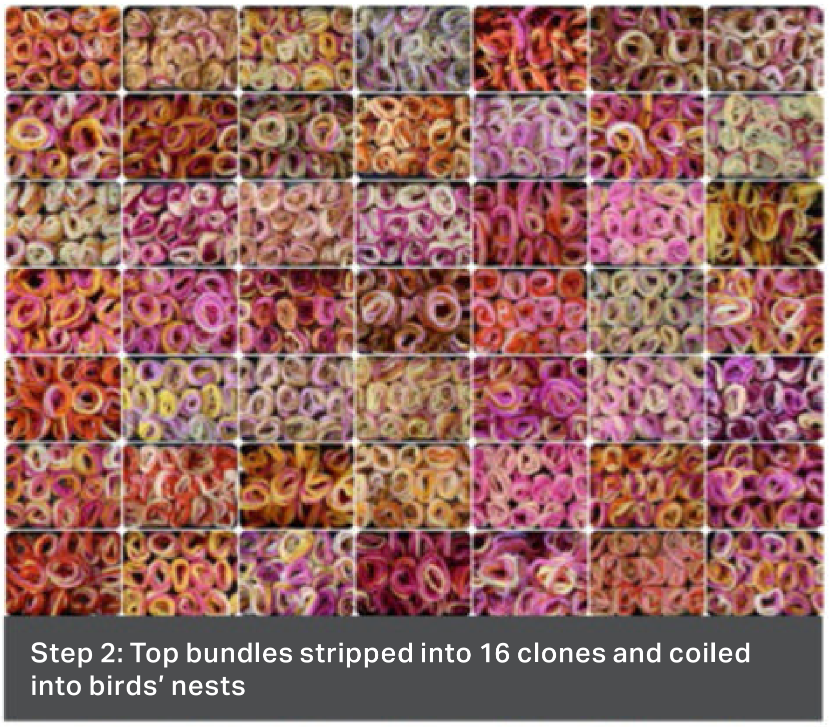
component, the idea being that this common element would create some sort of color harmony connecting all the skeins produced. Sometimes, it was clearly the dominant color and sometimes, little more than a tinge among its fellow fibers. Pastel colors were distributed fairly evenly and randomly through all the bundles.

Once the bundles were created **(Step 1)**, they had to be arranged into a spinnable format. I opted to split each length of wool top in the bundle into 16 similar if not identical clones **(Step 2)**. The splitting process also had the effect of opening up any sections of fiber that had become a little matted (but not felted) in the dyepot. It was not unusual for this to release puffs of dust of either dried-out excess dye or minute particles of foreign matter that managed to get trapped in the tops during the dyeing process. Each clone could be wrapped into a “bird’s nest” for safekeeping.

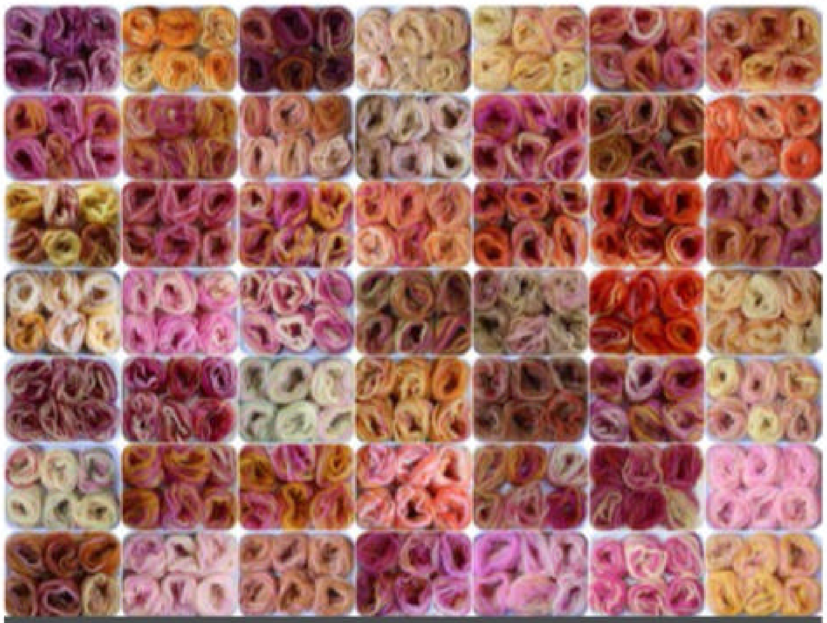
Spinning

All of my tops were white Merino; we have a lot of it in Australia. However, these tops were acquired over the years from different sources. Some were quite coarse, others extraordinarily fine, and they had been processed in different mills. Moreover, some of the dyestuffs seemed to be harsh on the fiber; others, such as lichen, tended to leave the wool feeling silky and soft. This was reflected in the character of the resulting yarn with welcome irregularities in flecking, loft, thickness, and color intensity.

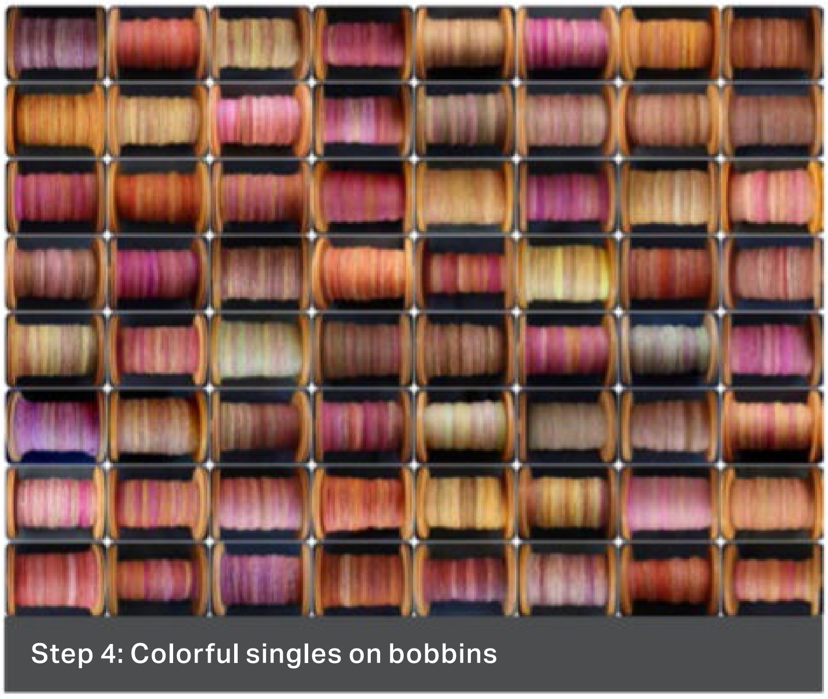
Step 1: Dyed tops organized into 100-gram bundles



Step 2: Top bundles stripped into 16 clones and coiled into birds’ nests

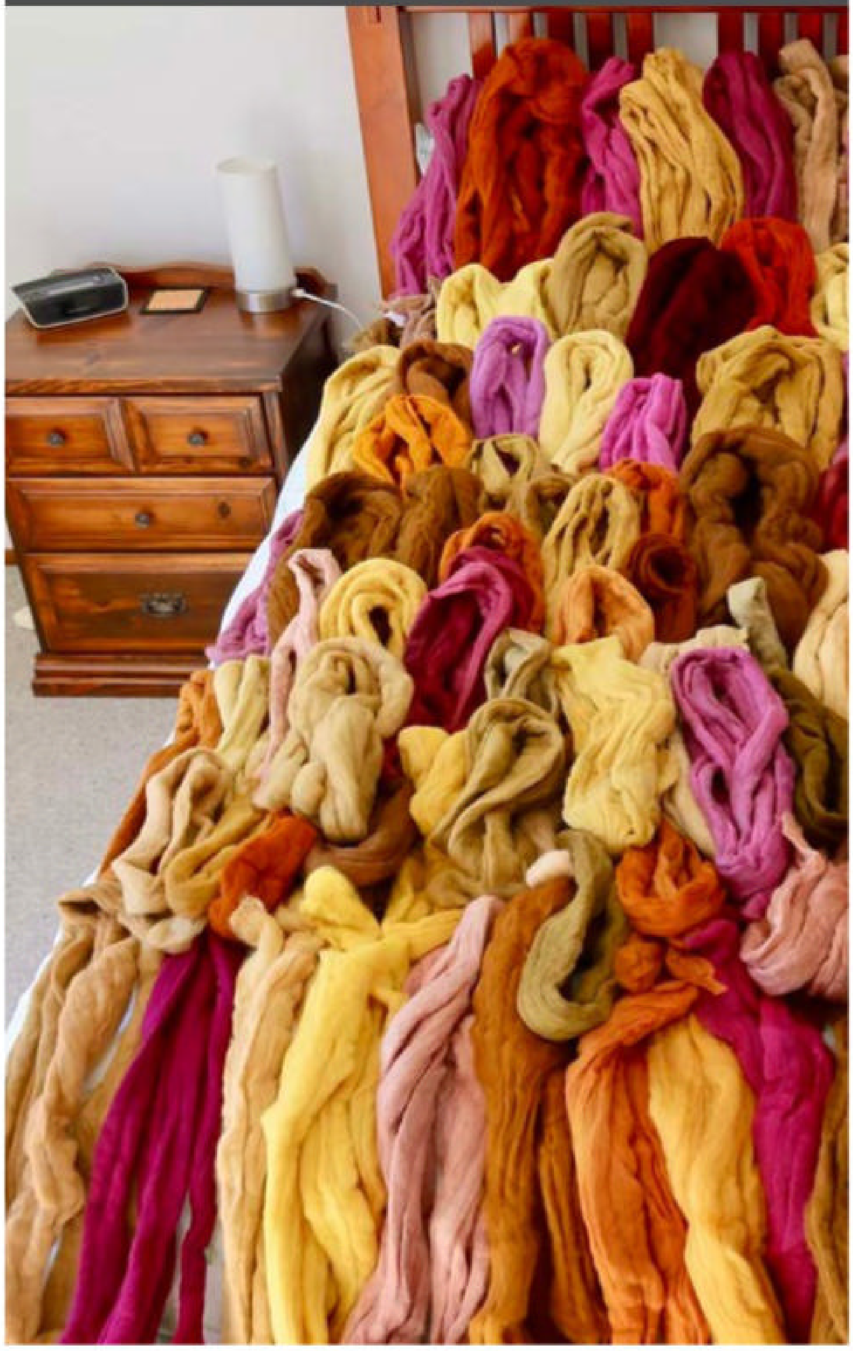


Step 3: Predrafted clones in tidy birds’ nests

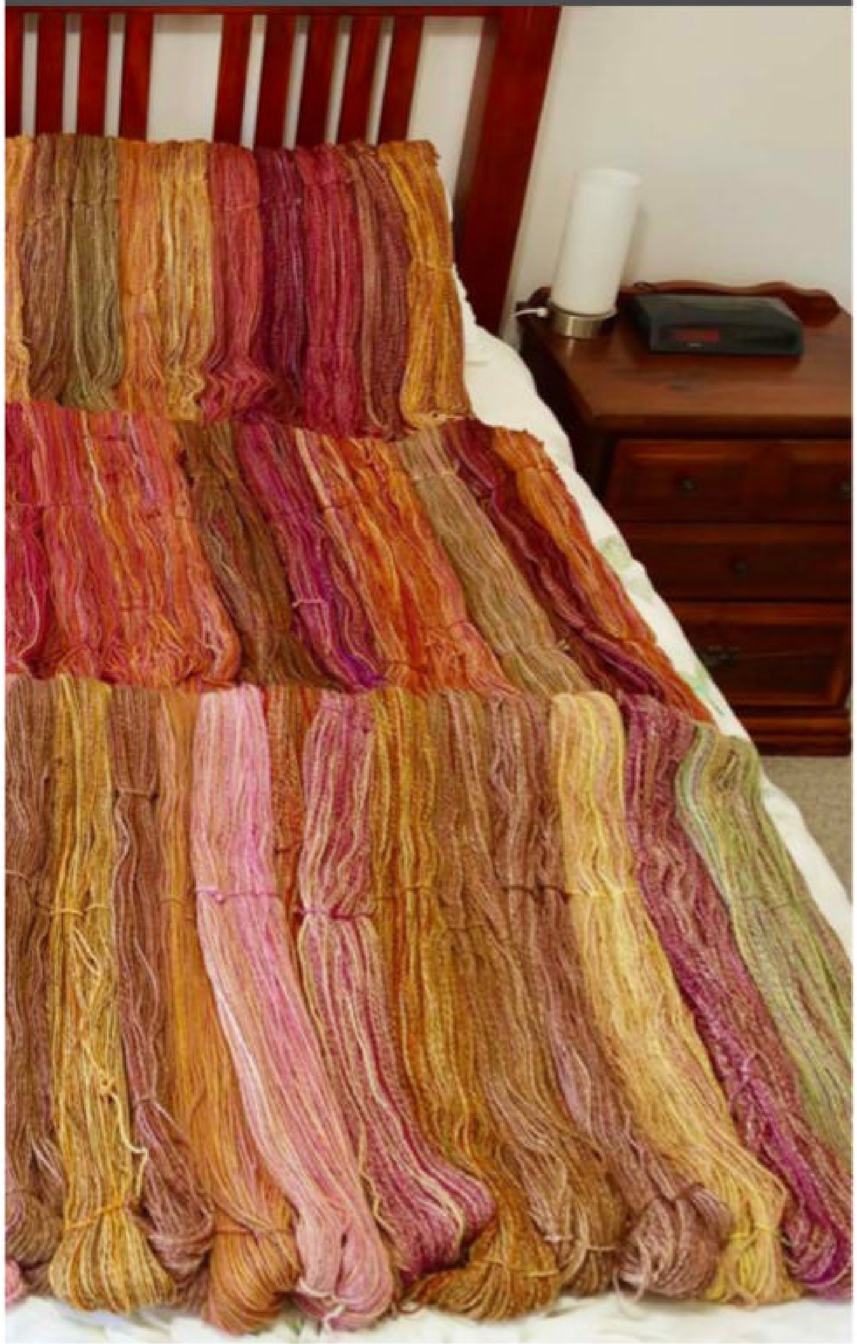


Step 4: Colorful singles on bobbins

The starting point: a full set of plant-dyed tops



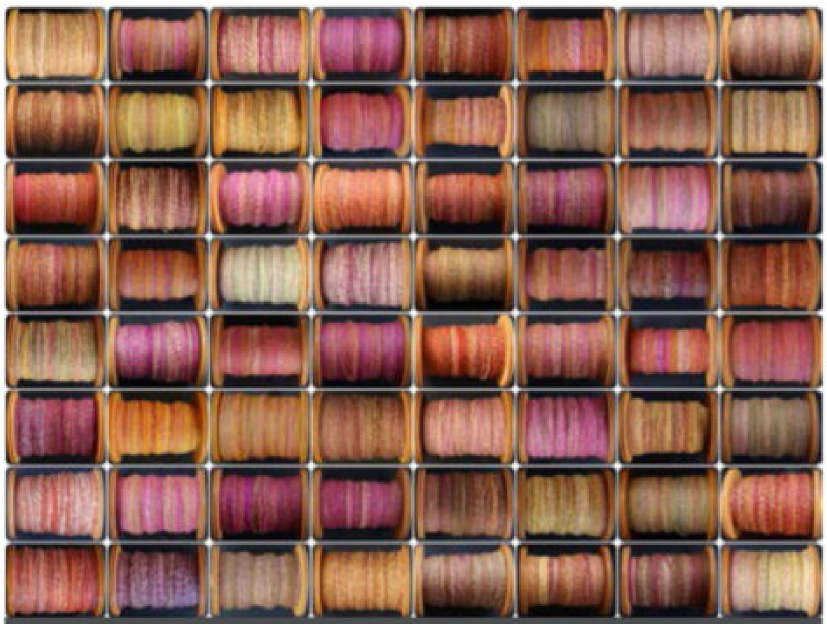
Resulting skeins from the full set of plant-dyed tops



It was mesmerizing to watch the colorful tops morph into singles with ever-changing transitions between random color blends and patches of solid color.

When I was ready to start a skein, I uncoiled each bird's nest, predrafted the fibers, and rewrapped the bundles I wasn't currently spinning **(Step 3)**. Predrafting helped to open the dyed fibers further and allowed the strips to marry, making spinning easier. To spin each bundle, I held the group of dyed strips together and began drafting. It was mesmerizing to watch the colorful tops morph into singles with ever-changing transitions between random color blends and patches of solid color **(Step 4)**.

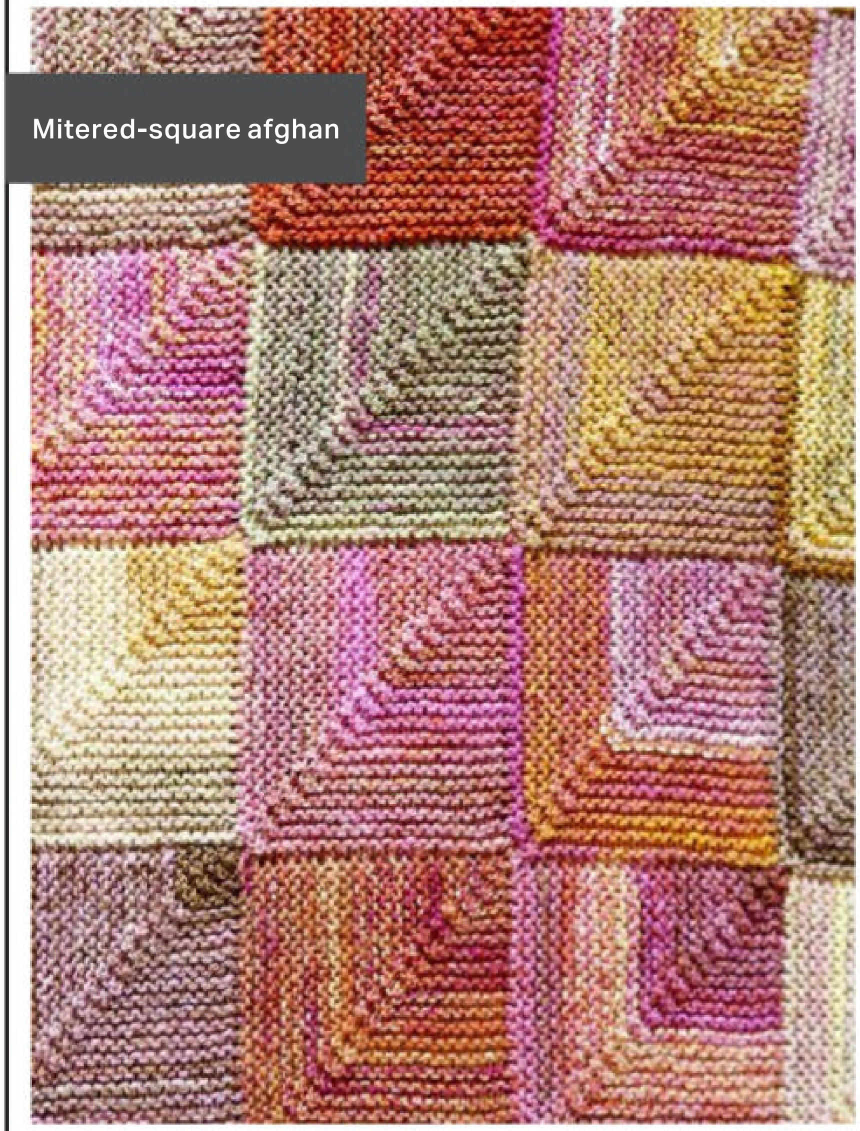
Equally fascinating were the fleeting glimpses of the separate strands of singles in each new loop as I began chain-plying **(Step 5)**. Colors twirled past me, forming more concentrated stretches of speckled three-ply



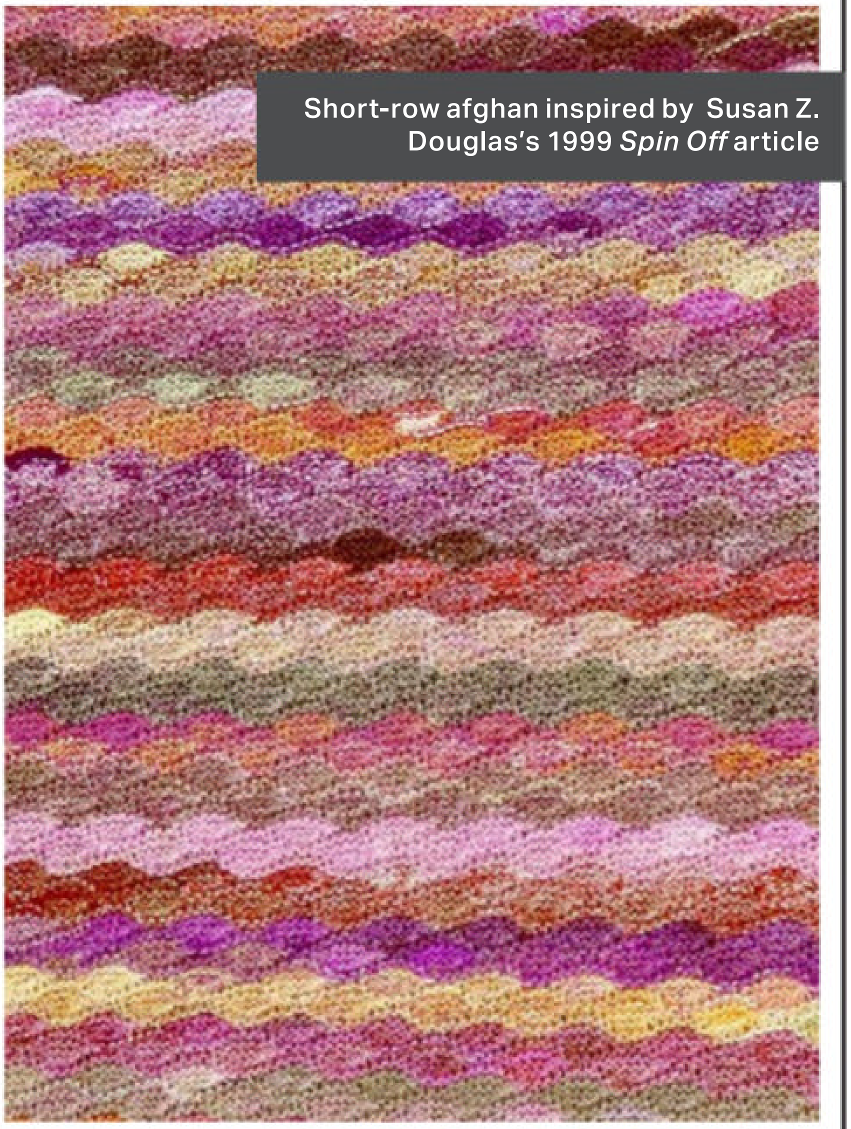
Step 5: Bobbins of chain-plyed yarn

GALLERY

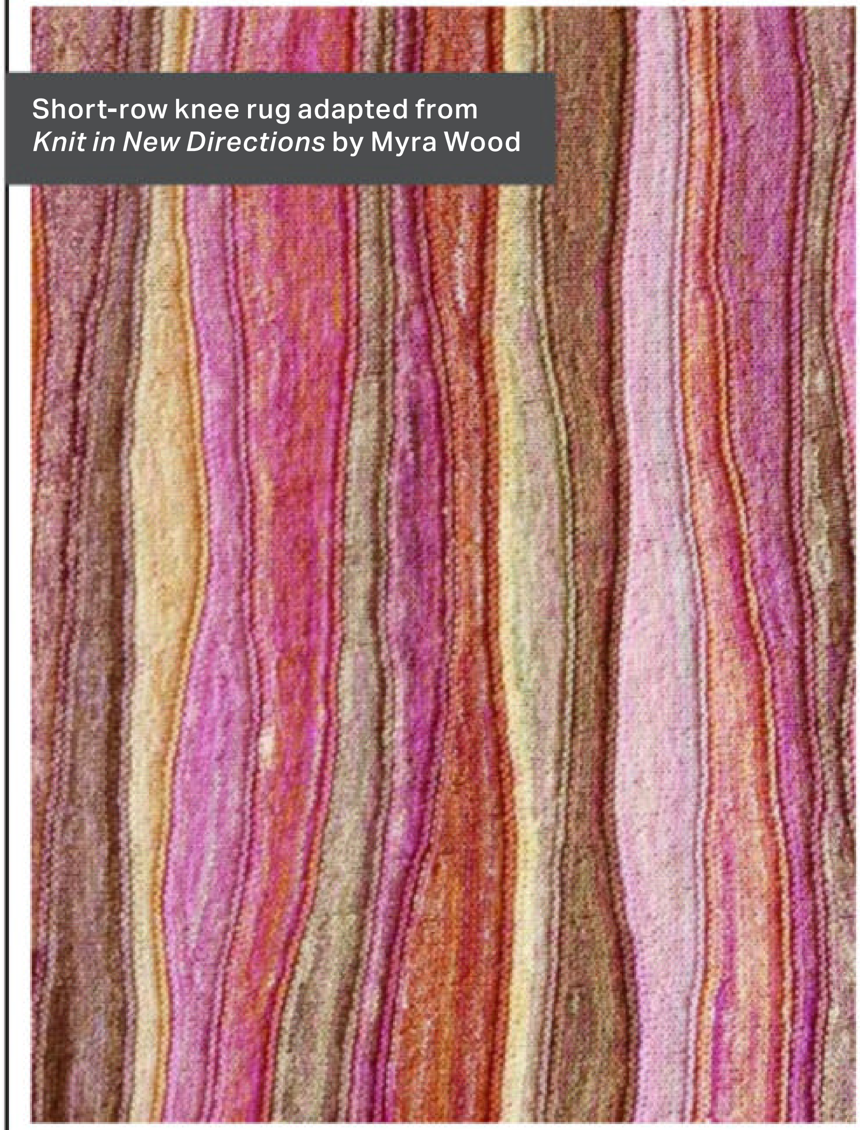
To date, I've finished five projects using my resulting yarns.



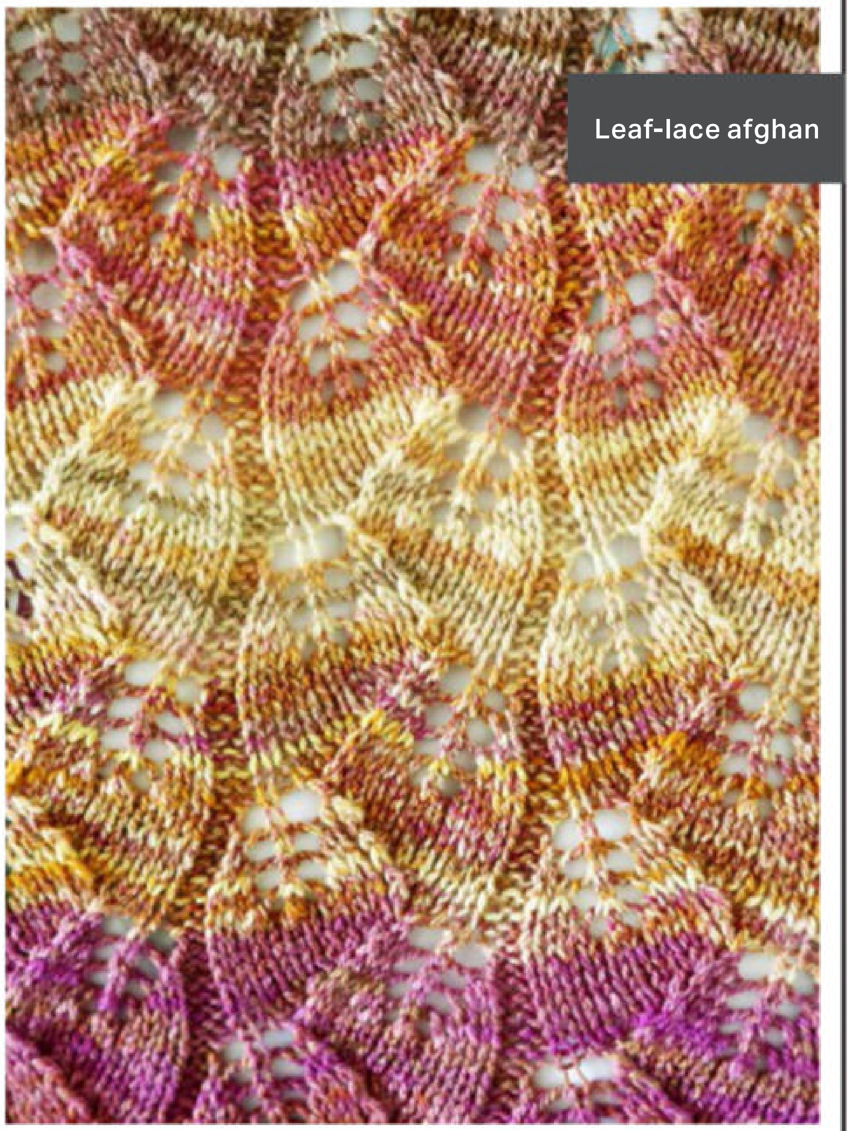
Mitered-square afghan



Short-row afghan inspired by Susan Z. Douglas's 1999 *Spin Off* article



Short-row knee rug adapted from *Knit in New Directions* by Myra Wood

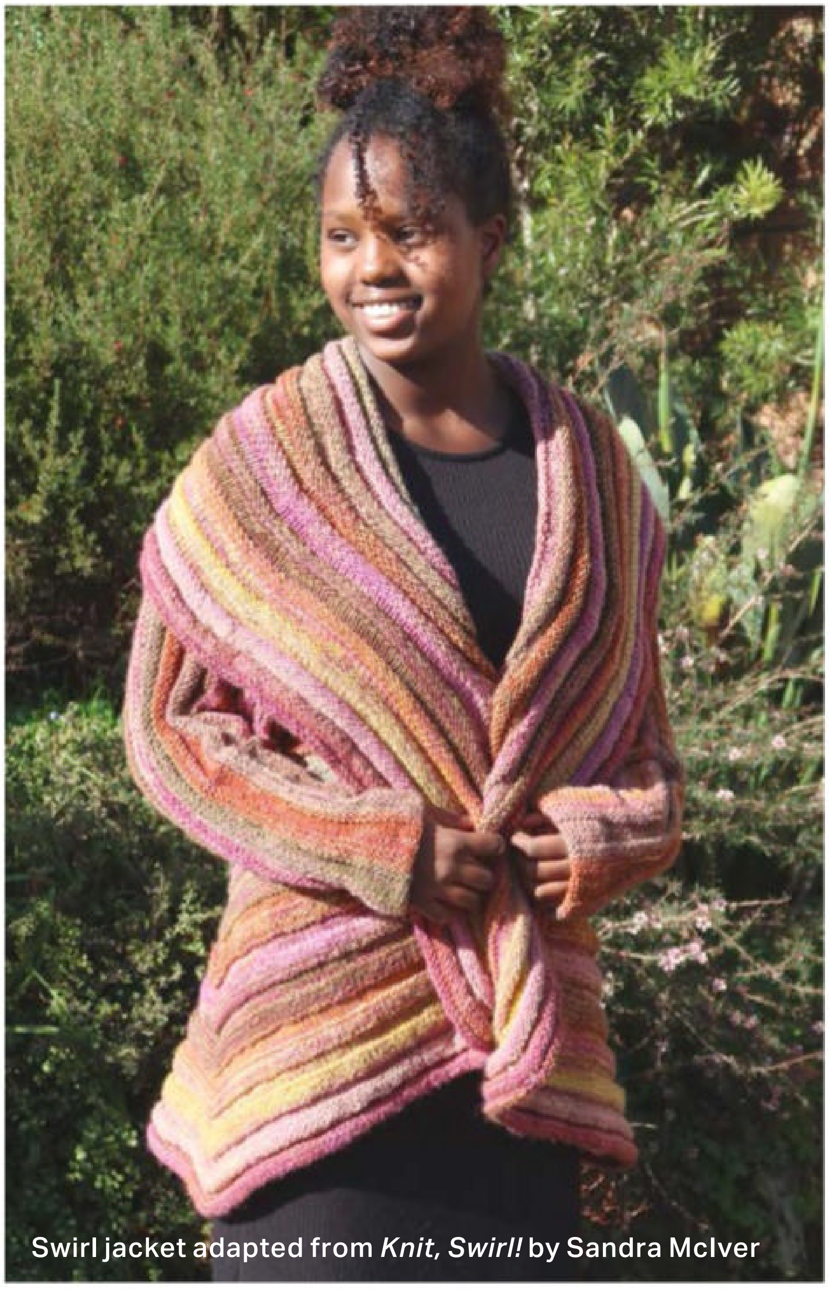


Leaf-lace afghan

The pictorial record of converting the tops to yarn provide a static illustration of something that is essentially ephemeral. Each transformation had to be captured before it was permanently erased in the next phase.

yarn as the singles moved between drafting hand and orifice. Both the singles and the plied yarn provided a constantly revolving kaleidoscope as new layers built up and gradually shifted back and forth across the bobbin, masking the layer beneath. Simple pleasures!

The pictorial record presented here of the various steps involved in converting the tops to yarn provide a static illustration of something that is essentially ephemeral. Each transformation had to be captured before it was permanently erased in the next phase. A static picture is, however, a good deal more satisfactory than no record at all and certainly preferable to trying to find a willing observer to sit watching each stage of an exercise that took several months of resolute spinning to complete! I did, however, occasionally find myself musing on how much more pleasant a real-time video of the gradual build-up of those singles would be compared to digitally programmed screensavers.


Swirl jacket adapted from *Knit, Swirl!* by Sandra McIver

The preparation and spinning processes had deconstructed the bold harlequin palette of the plant-dyed tops and reconstructed it in the form of a softer, dappled, and complex impressionist palette of three-ply skeins. Any fabric produced from such yarn is guaranteed to be unique and would certainly not lend itself to portrayal using a paint-by-numbers approach! As with any impressionist canvas, the extent of the stippling and complexity of tints and shades is only fully evident through close-up inspection of the work. ●

Postscript: It seems appropriate to conclude with the frank but slightly embarrassing confession that my next stash of plant-dyed top already weighs well over a kilo!

> *Editor's Note*: Brian created the beautiful compilation photos in this article to represent the different stages of his process. Get a closer look at these breathtaking palettes on our website: LT.Media/ColorPlay.

Resources

Douglas, Susan Z. "A Turn for the Better: Variegated Yarns and Short Rows in Knitting." *Spin Off,* Fall 1999, 57–59.

Lepp, Heino. "Lichens and People: Dyeing." Australian National Botanic Gardens, anbg.gov.au/lichen/lichens-people-dyeing.html.

McIver, Sandra. *Knit, Swirl!* Windsor, CA: SeaStack, 2011.

Wood, Myra. *Knit in New Directions: A Journey into Creativity.* Sioux Falls, SD: XRX Books, 2014.

Brian McCarthy lives on the south coast of New South Wales. He is a lifelong knitter who took up spinning on retirement after touching a skein of handspun Merino that made him realize just what he was missing. His very patient wife, four children, and nine grandchildren have ended up with a lot of handspun jumpers, shawls, scarves, and afghans.

A precious ball of handspun wool forms an unbreakable bond between two souls who will never meet.

Photo by Vlado Damjanovski

Love and Loss

A Ball of Wool

ALI GILES-DAMJANOVSKA

It was polyps in her nose that finally took her. A kind of mesothelioma, they said. Yet, it's more likely the medicines the doctors kept persuading Blagitsa to take caused her death. The ironic thing about my mother-in-law's death was that she understood the natural world so intimately, having been quick to boil up herbs and weeds into tonics and poultices to remedy the villagers' afflictions and wise to the planting of wildflowers so that bees would pollinate her kitchen garden.

There she is smiling out from a retrospective of photographs decorating the walls of the village house. In one—their wedding day—Blagitsa and Dragan seem childlike. In another, she wears a polka-dot dress, a thick belt cinching the now-plump flesh of a recent pregnancy, perhaps my husband. Another shows the family tanned and smiling on a beach in Croatia. Blagitsa stands proudly with arms around the family, including her husband; it says a lot about the marriage. She wore the pants.

Still more pictures. Dragan, an optical engineer, sits under the lamplight methodically mending crosshairs from the Yugoslav army's rifles and fixing watches. He's quiet, slow, precise. And Blagitsa, singing in the kitchen, sleeves rolled up to the elbows wiping her brow with floured fingers and frosting her hair white.

Next on the wall, a photo of a plump middle-aged woman with graying hair swept up into a bun. My husband, in his early twenties, had photographed her

I hold it in my hands and imagine her nimble fingers flicking her spindle sharply clockwise to spin the yarn. The spinning was neat and consistent and good—much better than I could ever do.

whizzing away on her Bagat sewing machine, embroidering a napkin. I find her bridal trunk, filled with embroidered tablecloths, napkins, and doilies, and knitted jumpers in various patterns of cables and lace. She knitted two lace wedding dresses—one for my husband's first wife, the other for his sister. I have the chance to hold his sister's dress in my hands and marvel at the complexity of pattern.

She spun her own wool. I found two balls of her handspun singles among the commercial yarns in her knitting basket. I placed the small odd-shaped balls of commercial yarn in their color order and, having found a rusted crochet hook in her sewing drawer, proceeded to make a small knee rug. But I couldn't knit up the handspun, a rough sheep wool. I hold it in my hands and imagine her nimble fingers flicking her spindle sharply clockwise to spin the yarn. The spinning was neat and consistent and good—much better than I could ever do.

I miss Blagitsa, even though we never met. I have since plied her two balls of singles together with my own spindle. I cup the ball in my open hands, inhaling it as if to smell her scent. I contemplate the connection between two women who have never met, yet who are so alike in many ways.

The ball of yarn that I tenderly wash in a small basin of water like a newborn child is an umbilical cord, a thread of life from one woman to another over measures of time. The sweat of her labor is in this ball—her industriousness, her meditations, her frustrations, the conversations she had with other women as dexterous fingers flicked away, the gossip she heard from the other villagers, the feigned laughter at a badly told joke, the grumbles of an empty stomach as she thought about what to prepare for lunch for Dragan. It's all here, in this one ball of wool.

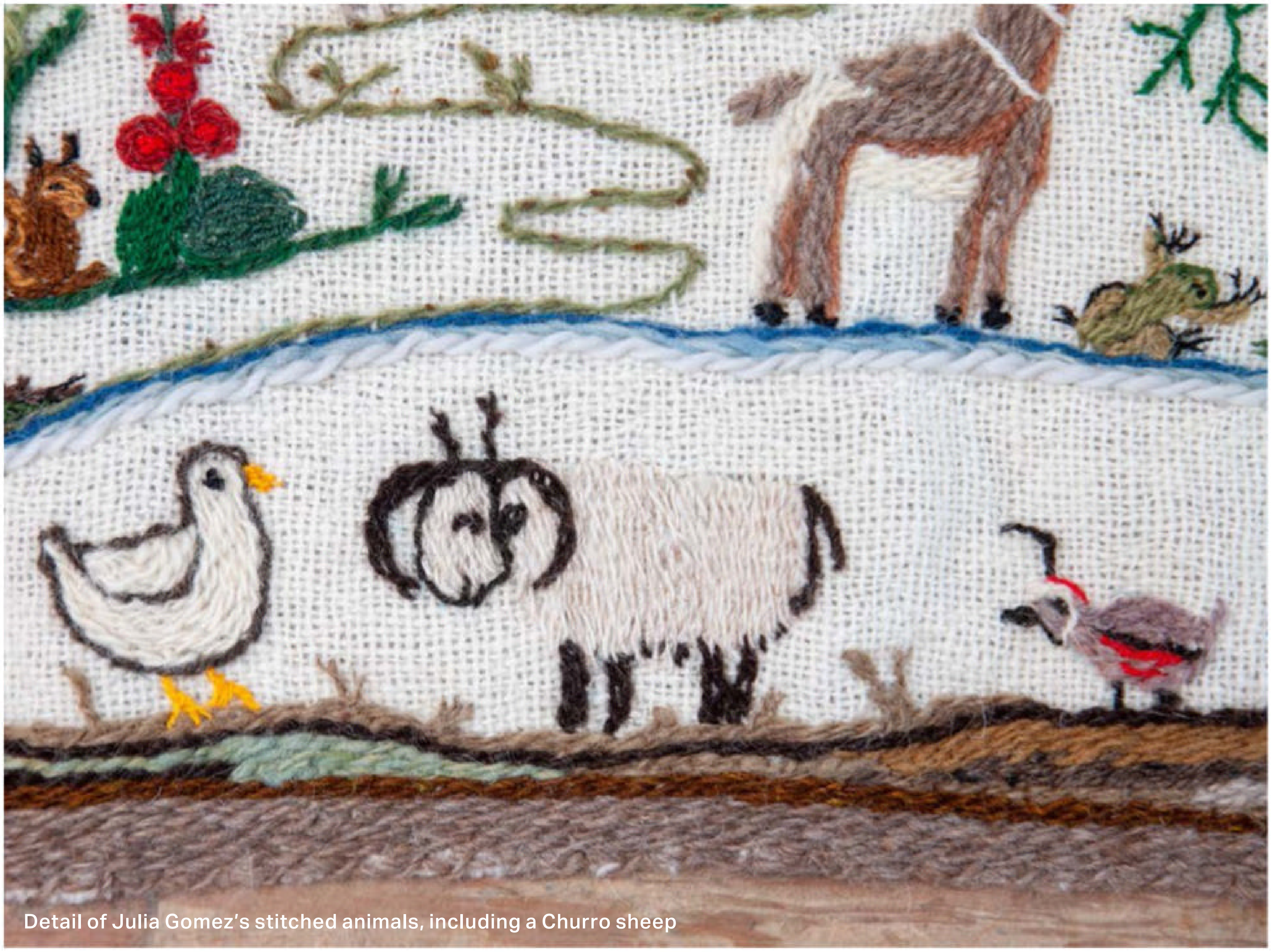
Blagitsa in the kitchen, circa 1978

Blagitsa sits at a Bagat sewing machine in her Macedonian home.

Courtesy of Ali Giles-Damjanovska

Based on an essay that appeared in the anthology *Love and Loss* (Dunedin, New Zealand: Exisle Publishing, 2020).

Alison Giles-Damjanovska was raised in a family where textile crafts were considered a serious income. Ali is an award-winning weaver. She also spins, knits, and sews. Her passion is ethnic design and technique, and her gurus are Anna Zilboorg and Priscilla Gibson-Roberts.



Detail of Julia Gomez's stitched animals, including a Churro sheep

Photos by Joe Coca unless otherwise noted

Colcha Embroidery

Stitching with Churro Wool

JULIA R. GOMEZ

My love for colcha embroidery began in 2000 when embroidery artist Beatrice Maestas Sandoval invited me to El Rancho de las Golondrinas, a living history museum in Santa Fe, New Mexico. I worked that summer as a volunteer, learning about the Churro sheep—Las Golondrinas keeps a small flock. I worked every day with Beatrice, learning to spin wool from the sheep and dye yarn from the plants grown on the ranch.

I learned about the history of the Spanish settlers who brought the Churro to New Spain in 1598 and about the colcha embroidery that traveled with them up El Camino Real from Mexico City. I fell in love with the story of colcha embroidery, of how women created a bit of beauty with only a needle, some wool yarn, and scraps of cloth. I fell in love with it because the history of colcha is my history. It's also an important piece of New Mexico's history.

I had already learned the colcha stitch from the legendary artist Monica Sosaya Halford in the late 1970s when she taught a class at the Museum of International Folk Art in Santa Fe, New Mexico. After my summer at Las Golondrinas, I understood that colcha was more than merely a stitch; it represented the lives and the stories of colonial women in northern New Mexico. I have devoted myself to telling their stories and continuing their textile traditions ever since.

WHAT IS COLCHA?

Colcha stitch is the New Mexican name for the couching stitch used around the world since ancient times. Other names for the same couching stitch are Bokhara, Basma, Romanian, and convent stitch. The Spanish word *colcha* means bedspread or blanket. The use of the word colcha for the stitch started in the 1920s and 1930s with widening interest in the colorful embroideries.

Embroideries are called *bordados* in Spanish. Embroideries on *sabanilla*, a plain-weave ground cloth, were called *sabanilla labrada* after the sabanilla was embroidered. The word *labrada-o* refers to the decoration. Today, colcha embroideries are not solely bedspreads; thus, the word colcha should be used as a modifier.

The colcha stitch is a long, self-couching stitch, secured to sabanilla by anchoring stitches. The Spanish word *sabanilla* means sheeting, as in a bedsheet. Sabanilla is a loosely woven plain-weave utility cloth used for many purposes, including as packing material for objects to be carried on a mule.

Men did the weaving by the last light of day. After a full day of working in the fields, watching the sheep, or hunting, they came in to weave a rug or a blanket. They also wove sabanilla.[1] At that time, it would have been a luxury to have a large piece of sabanilla to embroider. Because women had little fabric for embroidery, they collected scraps, sewed them together, and then embroidered the entire face of the fabric to hide the background and seams.[2]

The Churra sheep were considered "peasant" sheep because their fleece was used for rugs and utility cloth. In what is now called the American Southwest, they became the "prize" sheep because they provided meat, milk, and fleece.

THE CHURRO

In 1598, the Spanish brought thousands of animals to the Americas, including many Churra sheep, now

Churro sheep at Las Golondrinas

Photo by Richard Gonzales

Julia uses handcards to prepare Churro for spinning.

called Churro in North America. At that time, the economy of Spain depended on the Merino sheep, so this coveted breed was not allowed to leave Spain. The Churra sheep were considered "peasant" sheep because their fleece was used for rugs and utility cloth. In what is now known as the American Southwest, they became the "prize" sheep because they provided meat, milk, and fleece for the settlers. They adapted to the climate, required little water, and ate what was available.

Shearing & Washing

Sheep were shorn during the colonial period (and still sometimes today) using blade shears. After the wool is off the sheep, it's skirted to remove unusable wool (short belly wool and overly matted and dirty sections).

The wool is then typically washed. The Indigenous peoples taught the Spanish settlers to use the root of a yucca plant, *amole,* for soap. I have used amole to wash yarn, breaking the root open with a rock to find a creamy, white, and sudsy substance that smells like spring. Some yucca plants are protected by law in some states, so learn more before trying this yourself.

Now I use Dawn dish soap or baby shampoo for washing the wool. I also enjoy "spinning in the grease," which means that I spin the wool right off the sheep; it feels soothing to the hands because of the lanolin. Washing skeins once the wool is spun often requires less water, which is important where I live. I've tried both methods, but many dyers find colors are more vibrant when lanolin is washed out of the wool in a separate process before dyeing.

Carding & Spinning

Most commonly, wool is carded to align the fibers before spinning. Carding the wool was one of the chores of colonial children. The Spanish brought cards with them, as many of them owned sheep in Spain. Carding aligns fibers and removes some debris. Carding Churro helps add loft to this medium-to-coarse wool that tends to have low crimp. We call a rolag a *colita,* which is the Spanish word for tail. In this case, it refers to the tail of the sheep.

The Churro fiber I work with has a fairly long staple and is easy to spin. I own a spinning wheel, but I learned the basics on a *malacate,* a spindle used by some Indigenous communities and the Spanish

The sheep themselves provide natural colors, including black, gray, various shades of brown, and many shades of white. Indigenous dyers taught the Spanish to use natural vegetation local to this area to expand the color palette.

settlers. I am not the best spinner, and I don't want to be. My yarn is slubby and uneven, but I like the texture it gives my embroidery.

I spin Churro with a long-draw technique to create yarns that are airy and soft to the touch. After spinning, I rinse each skein of singles and dry the skeins with a weight to set the twist. When dry, the yarn is ready for the dyepot.

Dyeing the Yarn

The sheep themselves provide natural colors, including black, gray, various shades of brown, and many shades of white. Indigenous dyers taught the Spanish to use natural vegetation local to this area to expand the color palette. Many plants make yellow. For example, the chamisa plant (*Ericameria nauseosa*), commonly known as rabbitbrush, provides a bright yellow depending on the concentration of the plant in the dyepot. Cota (*Cota tinctoria*), or Navajo tea, is used for a beautiful yellow dye and to alleviate stomachaches. In the Santa Fe area, it grows everywhere in the spring.

Orange comes from madder root (*Rubia* spp.), which also produces a brick red color in high concentration. Wild spinach (*Chenopodium album*), called *quelites* in Spanish, will dye yarn a sage green when prepared in an iron pot. When wild spinach is young and tender, it is edible, but if the stalks are big and old, they may be used for dye.

These plant dyes and others often need or benefit from the addition of a mordant. So, before brewing up a dyepot, I mordant my skeins using alum and cream of tartar the day before dyeing.

The imported dyes traditionally used for wool are indigo for blues and cochineal from Central and South America to create reds. Purple comes from overdying cochineal with indigo.

TYPES OF COLCHA EMBROIDERY

There are two types of colcha embroidery: wool-on-wool and embellished textile. The wool-on-wool colcha is completely covered with stitches. This dense embroidery

Julia's Mordant Process: Alum and Cream of Tartar

Before you mordant the fibers, make sure they are washed and clean. I wash wool with a mild soap, such as Dawn dish soap or baby shampoo. Be sure to rinse well. When you are ready to mordant, the fibers should be soaked for a few minutes in water, squeezed gently, and placed in tepid mordant solution. Please mordant and dye outside or in a well-ventilated room.

To mordant 1 pound of dry wool:

- 4 ounces (113 grams) of alum (aluminum potassium sulfate)
- 1 ounce (28 grams) of cream of tartar
- 4–5 gallons (15–19 liters) of cold water
- Small amount of boiling water
- Nonreactive dyepot, such as stainless steel

Dissolve the alum and cream of tartar in a little boiling water before adding the cold water and stirring well. Start to heat the water, and when it is lukewarm, add the wet fiber. Continue heating slowly until it comes to a simmer. Simmer for 2 hours. Cool the fiber in the solution and leave overnight.

You can either dye the wool the next day after it is cool or you can dry the skeins outdoors and store them for dyeing later. I do not rinse the mordant from the fiber before dyeing, but others do. The mordant solution can be reused for more batches of fiber because the fiber can only absorb some of the mordant from the solution.

would mask a background of pieced scraps, creating functional textiles such as bed coverings and carpets.

The other style is embellished textile. When the caravans from Mexico and the trade wagons from the Santa Fe Trail began coming to New Spain in 1821, settlers started trading for finer textiles and yarns. They traded for cloth that they didn't need to cover up and could embellish instead. The embroidery transformed into a more delicate style because there was no need to hide the ground fabric. Finely woven cotton ground cloth started to replace the handspun, handwoven sabanilla in the mid-nineteenth century. Wool-on-cotton colcha embroidery, stitched with synthetically dyed yarns, became common.

In the early twentieth century, commercial cloth and machine-made textiles became more desirable and available, and colcha embroidery began to die out. However, in 1934, Regina Cata and María Teófila Ortiz de Luján, along with several other women from the Española Valley in northern New Mexico, started Arte Antiguo. Emerging out of the Depression Era, this social club gathered monthly and revived the art of colcha embroidery.[3]

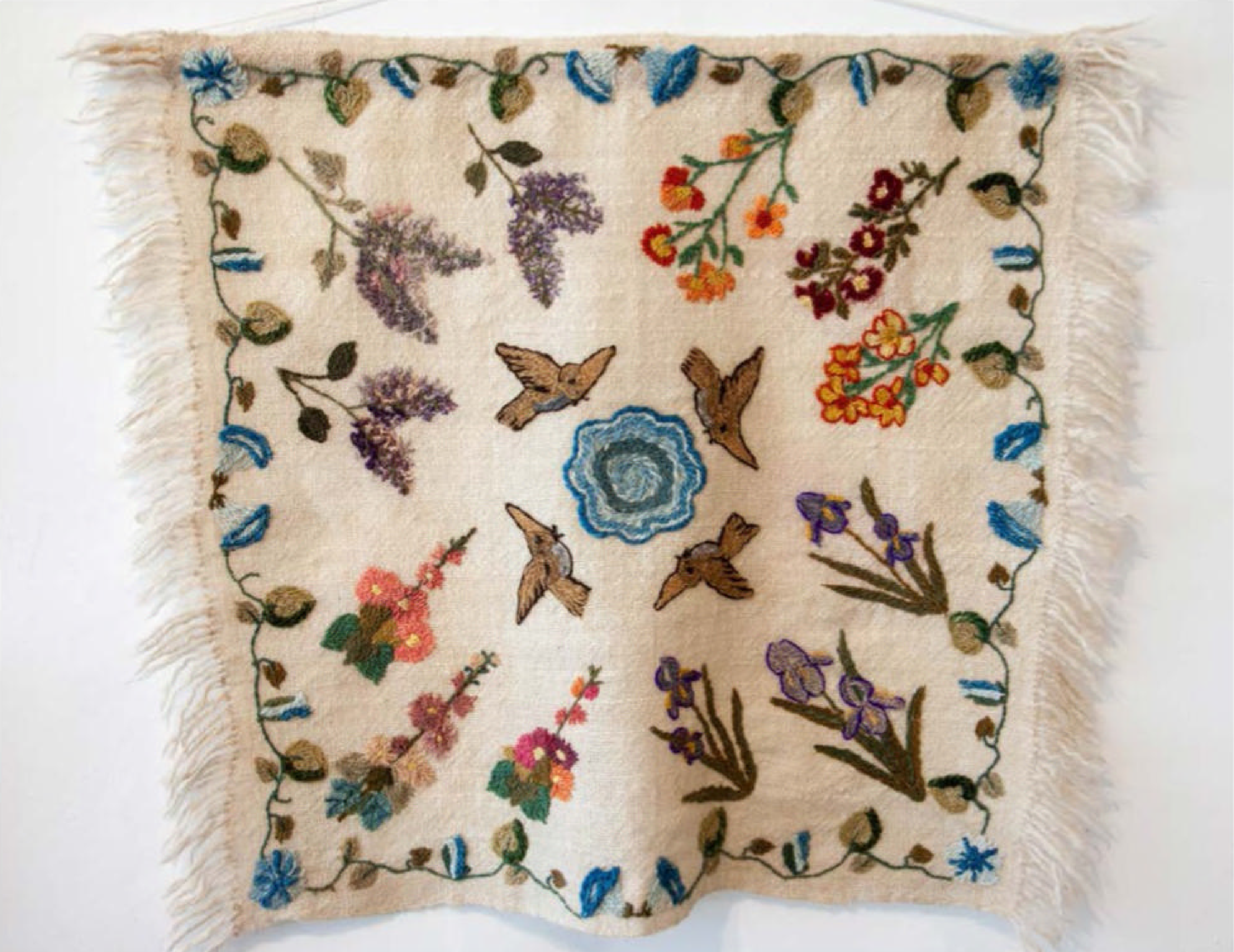
Because I use many traditional designs in my work, I like to tell stories with my embroideries. *El Rebozo de Sarah Maria (Sarah Maria's Shawl)* was my first piece to win the Collectors Award at the renowned Santa Fe Spanish Market in 2003. To accompany this piece, I told a story about spinning and weaving a baptismal shawl for my expected daughter, later using it for her first communion, then her wedding, and finally for her mother's funeral shroud (which hasn't happened yet!). I no longer own this textile; it was purchased by the Museum of Spanish Colonial Art.

I embroidered the Tree of Life featuring northern New Mexico birds for my mother while she was ill and before her death in 2015. This piece tells the story of my mother, sitting in her wheelchair, gazing upon a tree covered in birds. Because I did a piece for my mother, I also embroidered a piece for my father called *Los Sueños de mi Padre (Dreams of My Father)*. He was a hunter, so I embroidered the piece with deer.

Dyeing Tips

- Make sure pots are large enough so that the wool is never crowded.
- Soak wool in water for about 15 minutes before putting it into the dyepot.
- Never tie anything tightly around wool or skeins if you want even colors.
- Keep the water level constant and add more if it is needed.
- Always change temperature gradually, such as when moving from a hot pot to a cold rinse.
- To keep dyepots pure, do not move skeins from one to the other. Instead, you can create mixed colors in separate dyepots.
- Blossoms to be used for dyestuffs are best collected when in full bloom.
- When harvesting dyestuffs, store them in paper bags; plastic bags can lead to mold.

A palette of Julia's handspun, hand-dyed singles ready for embroidery



Cantaron los Ruiseñores (The Nightingales Sang) by Julia Gomez, embroidered for her daughter

Today, colcha embroidery artists continue to practice the art using historical designs, images from nature, and religious motifs. Many embroider significant places in their communities, such as churches or homes. Some address social issues. While many contemporary colcha embroiderers stitch on commercial cloth with commercial yarns, a few artists continue to spin Churro fleece into yarn, weave their own sabanilla, and dye the embroidery yarn with natural dyes as I do. Colcha embroidery continues to evolve in material and design, as do the stories it tells about women from colonial times to today. ●

Notes

1. Dextra Frankel and Thomas Mercer Hartman, *One Space/Three Visions* (Albuquerque: Albuquerque Museum, 1979), 87.
2. Dorothy Boyd Bowen, in *Spanish Textile Tradition of New Mexico and Colorado,* ed. Nora Fisher (Santa Fe: Museum of New Mexico Press, 1979), 5.
3. Nancy C. Benson, *New Mexico Colcha Club: Spanish Colonial Embroidery & the Women Who Saved It* (Santa Fe: Museum of New Mexico Press, 2008), 10.

Resources

Brandtner de Martínez, Irene. *Handbook of Spanish Colonial Art of Colcha Embroidery in New Mexico,* USA. Santa Fe: self-published, 2010.

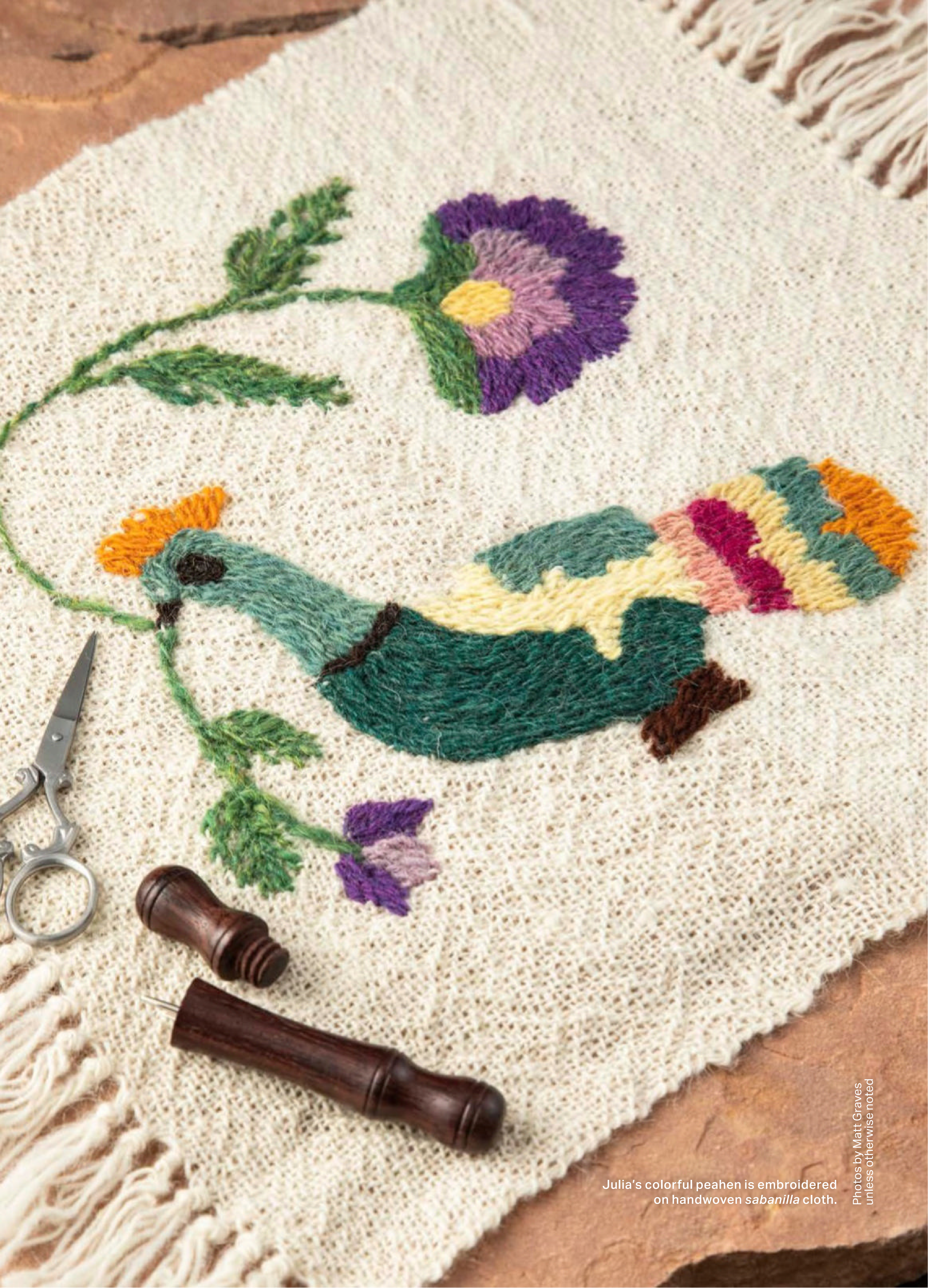
Erickson, Kirstin C. "*Las Colcheras:* Spanish Colonial Embroidery and the Inscription of Heritage in Contemporary Northern New Mexico." *Journal of Folklore Research* 52, no. 1 (2015): 1–37.

Espinosa, Carmen G., and Dolores Perrault. *New Mexico Colonial Embroidery*. 1935. Facsimile of the first edition. Los Lunas, NM: Simmons & Simmons Books.

MacAulay, Suzanne P. *Stitching Rites: Colcha Embroidery along the Northern Rio Grande*. Tucson: University of Arizona Press, 2000.

Special thanks to Dr. Kirstin Erickson for her help with this article.

Julia R. Gomez is an internationally recognized, award-winning colcha embroidery artist and teacher from Santa Fe, New Mexico. Julia considers herself the "Johnny Appleseed" of colcha embroidery because she wants to teach anywhere and everywhere, telling the story of the Churro sheep and the strong women who came to the arid land of New Spain and brought beauty with a needle and thread.



Julia's colorful peahen is embroidered on handwoven *sabanilla* cloth.

Photos by Matt Graves unless otherwise noted

A Colcha Peahen

JULIA R. GOMEZ

I chose a peahen motif for this project because it was the first design I was given by my teacher when I learned colcha embroidery in the late 1970s. Today, I often use the peahen motif when I am teaching new colcha embroiderers.

Feel free to choose your own colors for this project and make it your own. Nature may have dressed the peahen in dull colors for hiding her eggs in the grass, but the peacock has dazzling tail feathers to lure predators away from the nest. Because I tend to be eccentric, I wanted to dress up my peahen!

Julia uses singles yarns for both handweaving *sabanilla* and embroidering colcha. As is traditional, the yarns are spun from Churro wool and vary in gauge and consistency in ways that are unique to the artist.

TRADITIONAL TECHNIQUES AND MATERIALS

The colcha stitch is a filling stitch made using a long stitch on the surface of the work that is overlaid with a tacking stitch using the same thread. This self-couching technique gives good coverage and keeps almost all of the colorful threads on the surface of the work. I like to teach the peahen design because it requires both long and short versions of the self-couching stitch.

The long stitch can be straight or curved and as long or short as is necessary for the area to be filled. The longer the first stitch, the more tacking stitches you will need to secure the thread. As I work the tacking stitches, they lay diagonally over the long stitch. The unique texture of colcha embroidery is created by the repeated rows of stitching that fill the design.

The short stitch is the other stitch I use in my colcha embroideries (see page 86). I use the short stitch when there is no room for laying a long stitch and tacking it in place. The short stitch is a series of x's that can be used to fill in small spaces, such as the peahen's tail.

You will need a piece of fabric—wool, cotton, or linen, loosely woven. Traditionally, we use *sabanilla* as a ground cloth (learn more on page 76). Choose fabric that allows you to pull a length of yarn through the weave easily. My piece is 13½ inches wide plus 2½ inches of fringe by 13½ inches tall. Your piece can be any size you want.

RESOURCES

Enthoven, Jacqueline. "The Bokhara Stitch and Colcha Embroidery." *Needle Arts* 7, no 3. (1976): 27–28.

Espinosa, Carmen. *New Mexico Colonial Embroidery Booklet of Patterns.* Reproduced from the New Mexico Department of Vocational Education's booklet, 1943.

Sandia Mountain Chapter of Embroiderers Guild of America. *Santos for Embroidery: Spanish Colonial Designs.* Vol 1. Albuquerque: Sandia Mountains Chapter, Embroiderers' Guild of America, 1997.

Schueler, Karen. *Colcha Embroidery Handbook.* Rev. ed. Albuquerque: Sandia Mountains Chapter, Embroiderers' Guild of America, 1997.

MATERIALS

Fabric Sabanilla or other loosely woven ground cloth. Julia's cloth shown is 16" × 13½" before the edges are raveled to create fringe.
Needle Embroidery needle with a large eye and a sharp point. Julia prefers using a size 20 Chenille needle, but sometimes uses others. Any needle that can be threaded with the wool yarn will work.
Other Supplies Sharp scissors; water-soluble pen.
Optional Paper pattern template.

INSTRUCTIONS

1 Trace the peahen on your fabric using the water-soluble pen. Leave at least 1" of margin around your design so that you can fringe or hem your piece. Place your piece of fabric, which has been marked with the design, on your lap or on a table. Colcha was not traditionally worked with a hoop as they were not readily available, and the textile was thick. The hoop keeps you from manipulating the fabric as needed.

Julia recommends keeping stitches loose to prevent puckering.

Make It Your Own

The peahen illustration on page 86 is the central design, but you can add flowers and foliage. Julia encourages you to explore colors and dress your peahen as you choose!

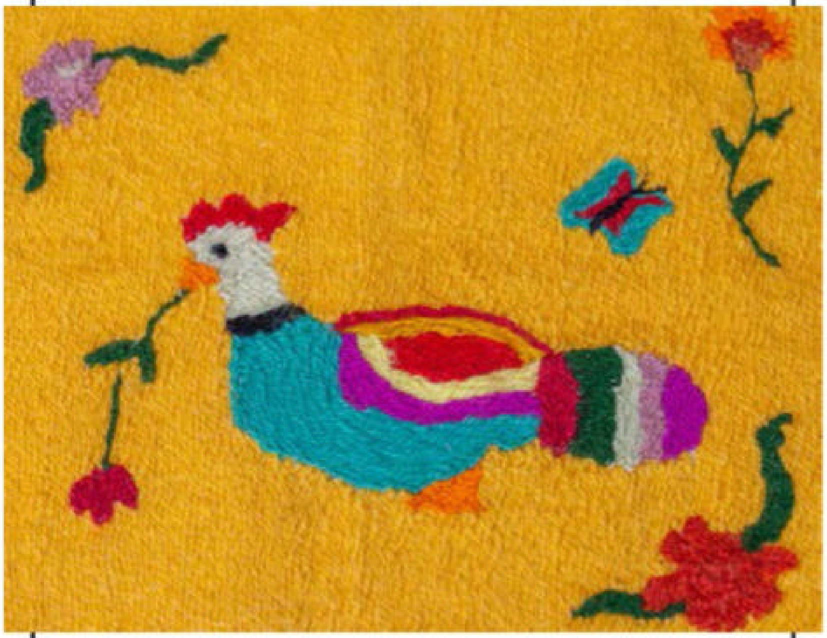


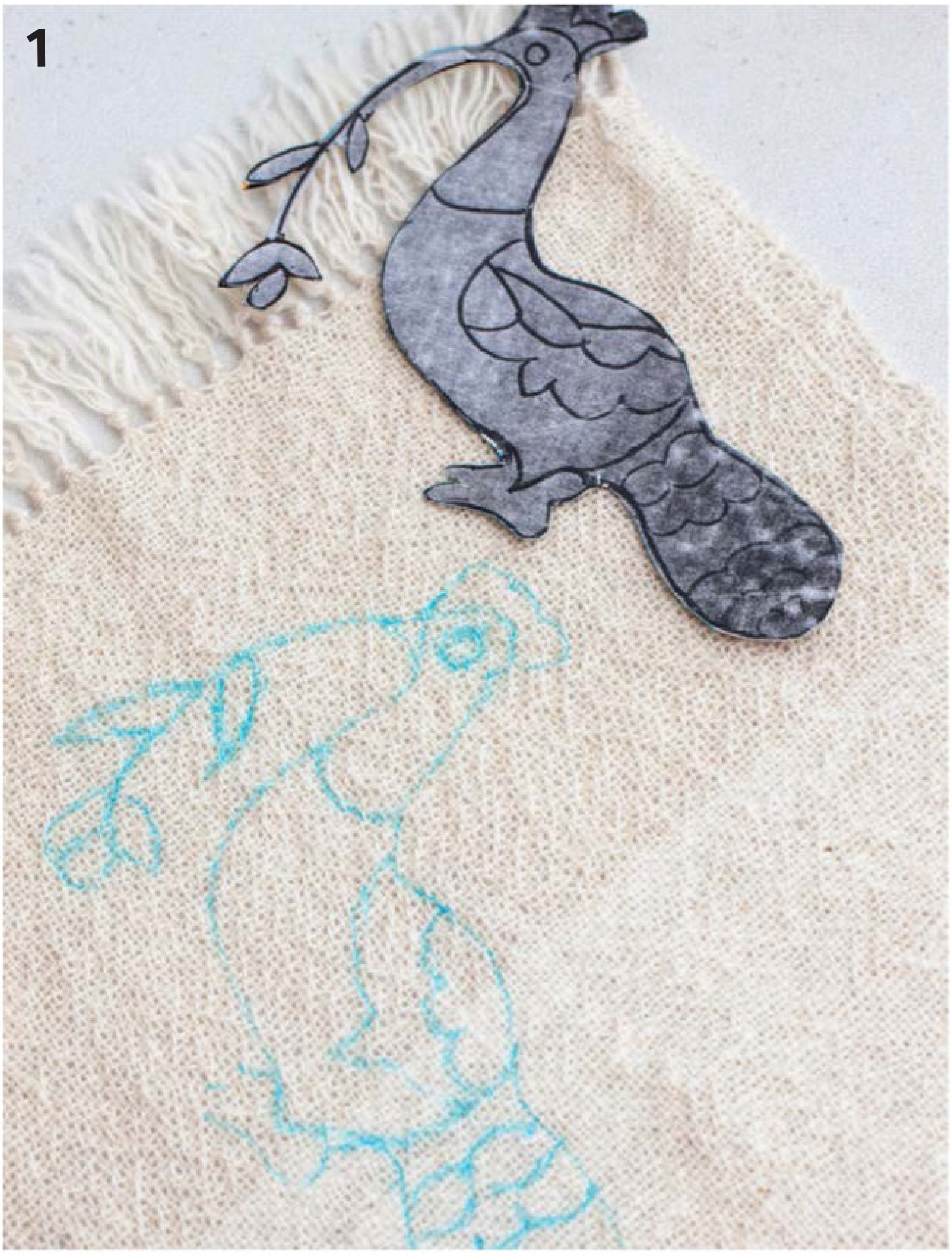
Photo by Joe Coca

Peahen embroidered by Barbara Alba. Note that Barbara completely covered the *sabanilla* with stitching. Learn more on page 76.

2 Begin stitching at the widest part of the shape that you have traced. On a peahen, Julia starts on the body under the neck stripe. Take 2 or 3 small tacking stitches (running stitches) diagonally toward the outline of the breast as shown on the peahen illustration, catching a thread of the fabric with each tacking stitch.

3 Lay the yarn across the space to be filled in—from top of breast along the outline—and take a small tacking stitch at the far end of the space, laying a long thread within the design. Keep the thread above the needle point as it penetrates the fabric for the tacking stitch.

4 To anchor the yarn, work back up the length of the yarn, taking a small, diagonal tacking stitch along the line of thread every ½" as you return to the neck. Just before you reach the neck band, jump over the row you are doing and take a tack for the second row.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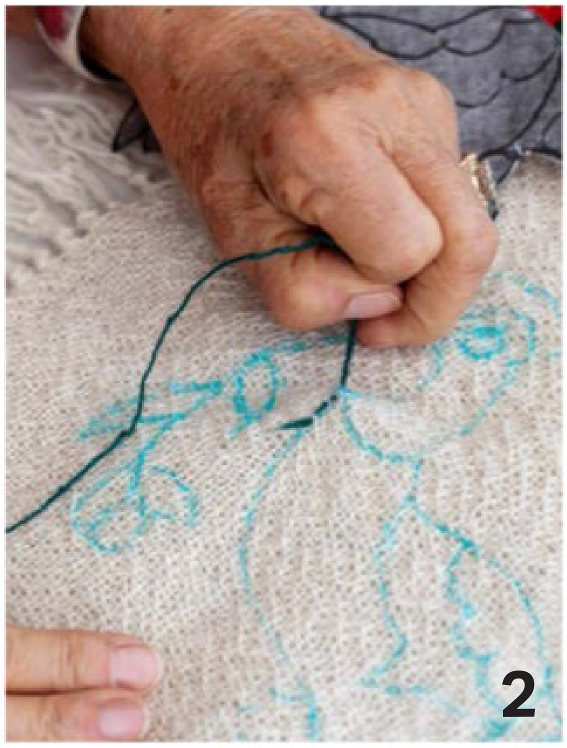
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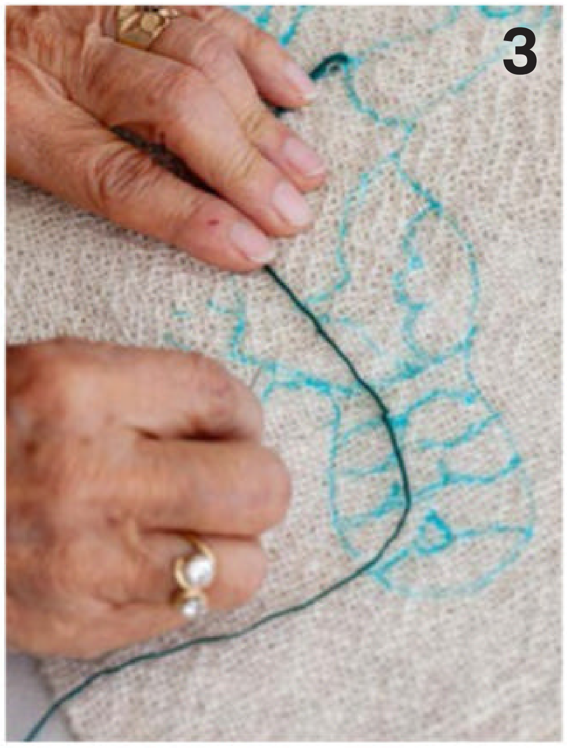
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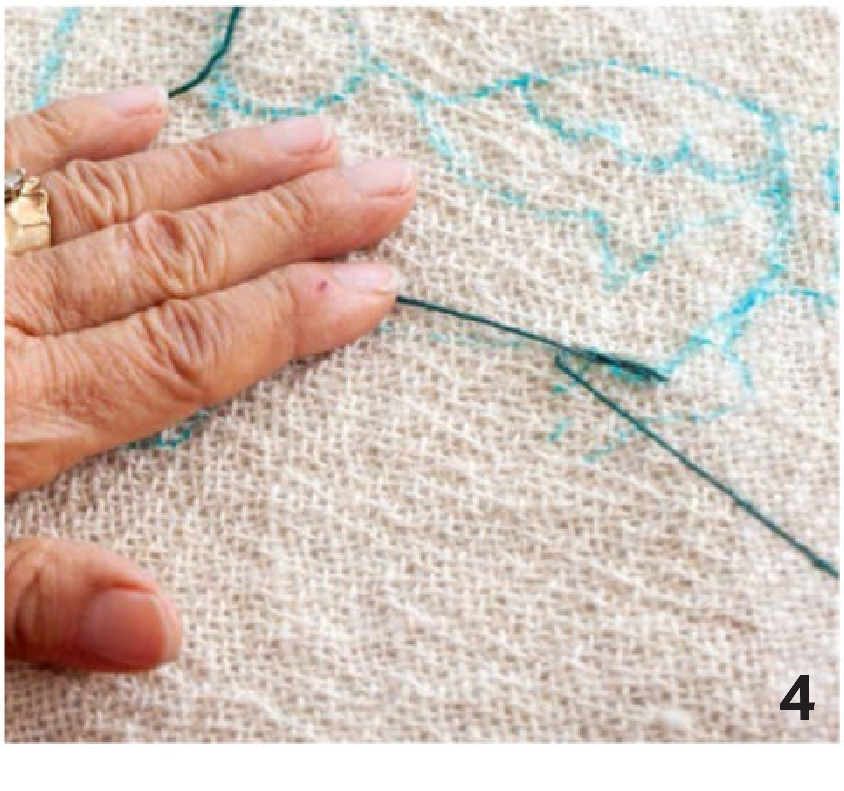
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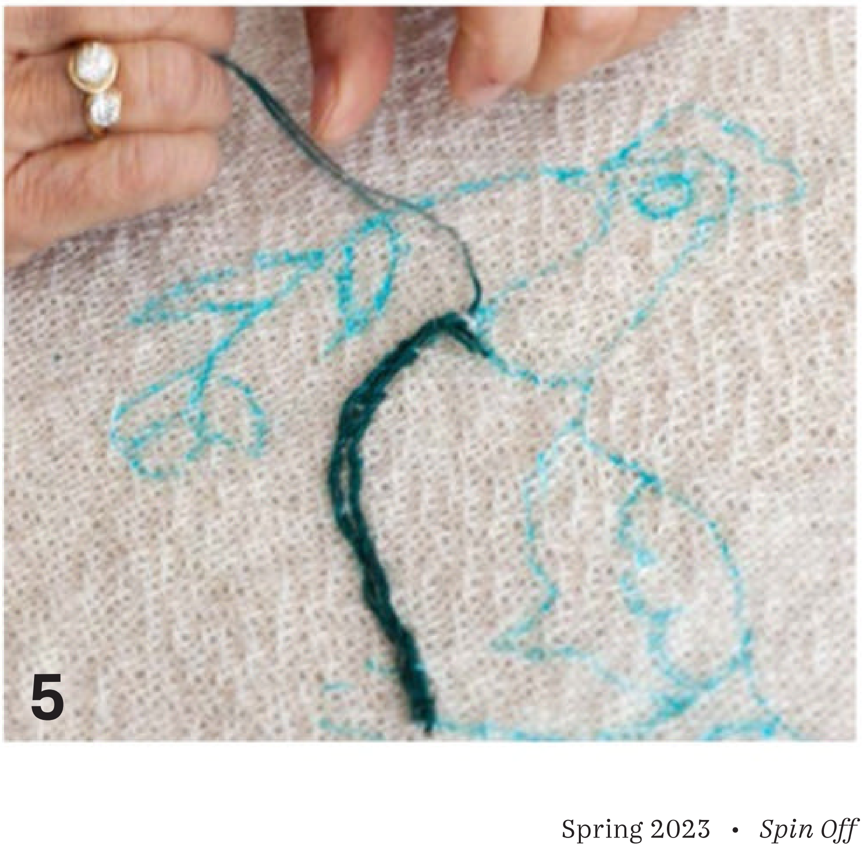
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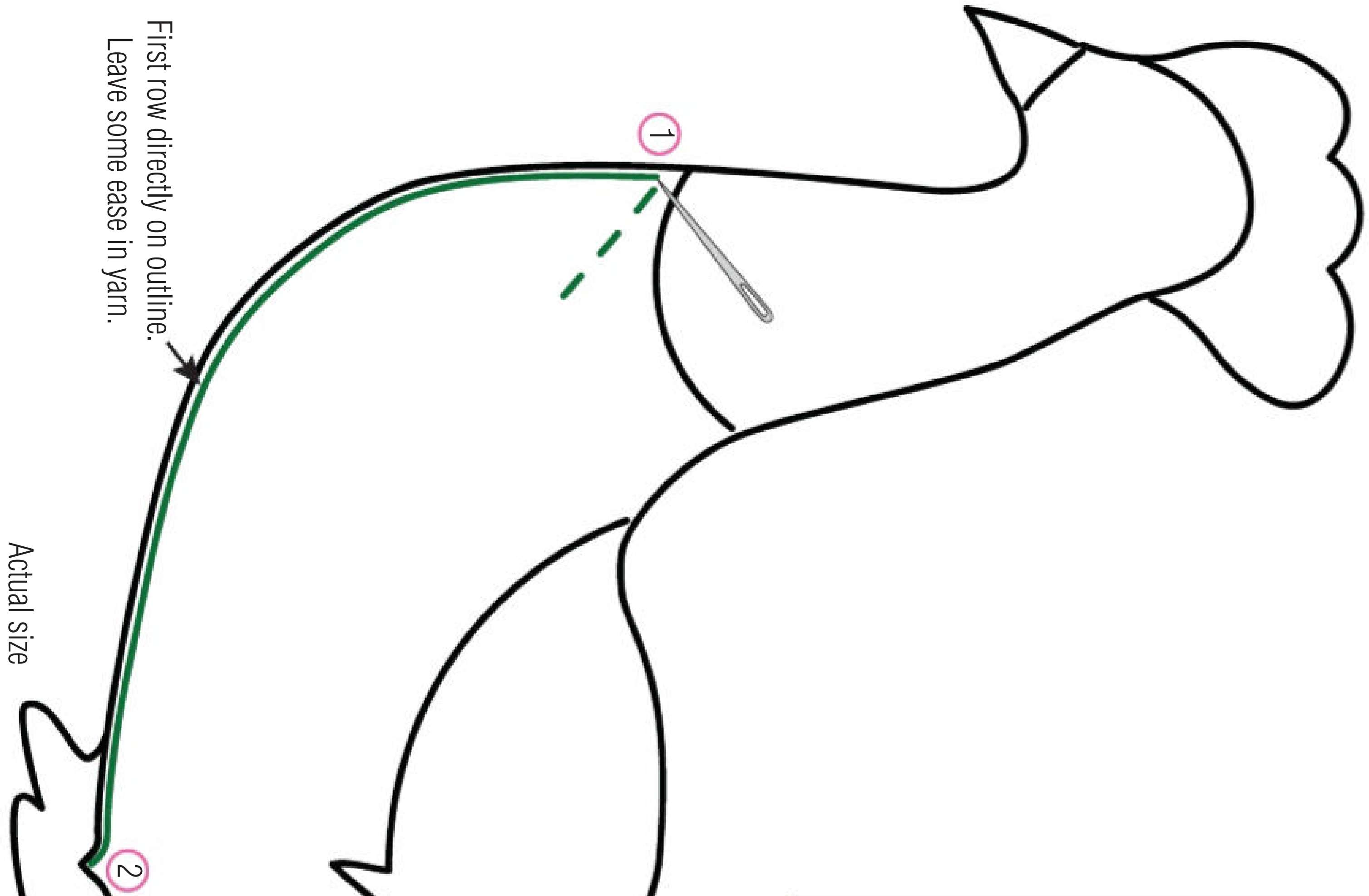
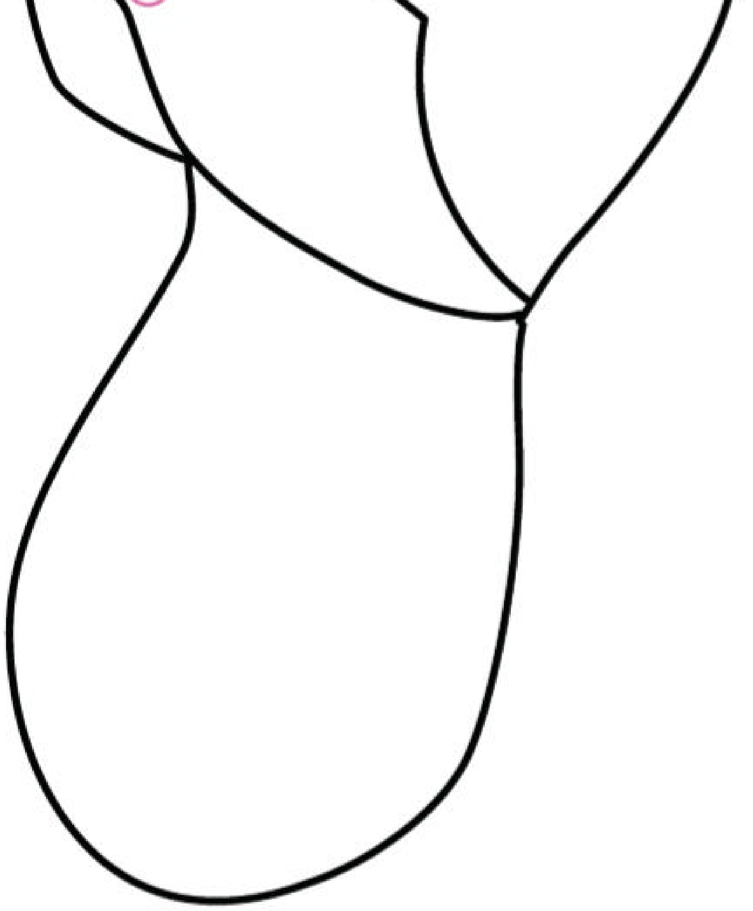
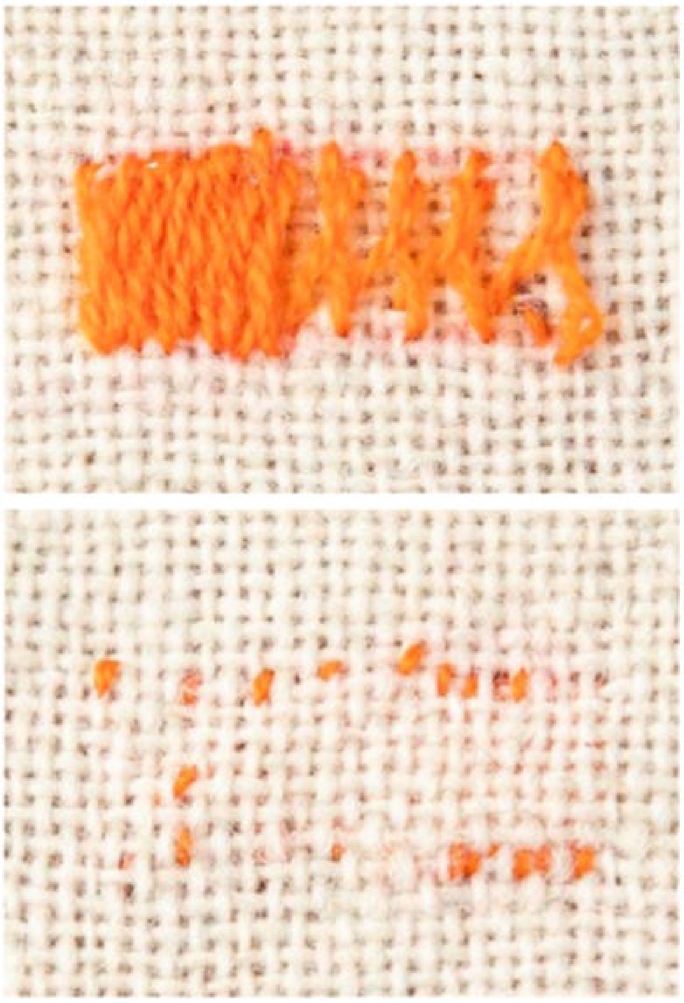
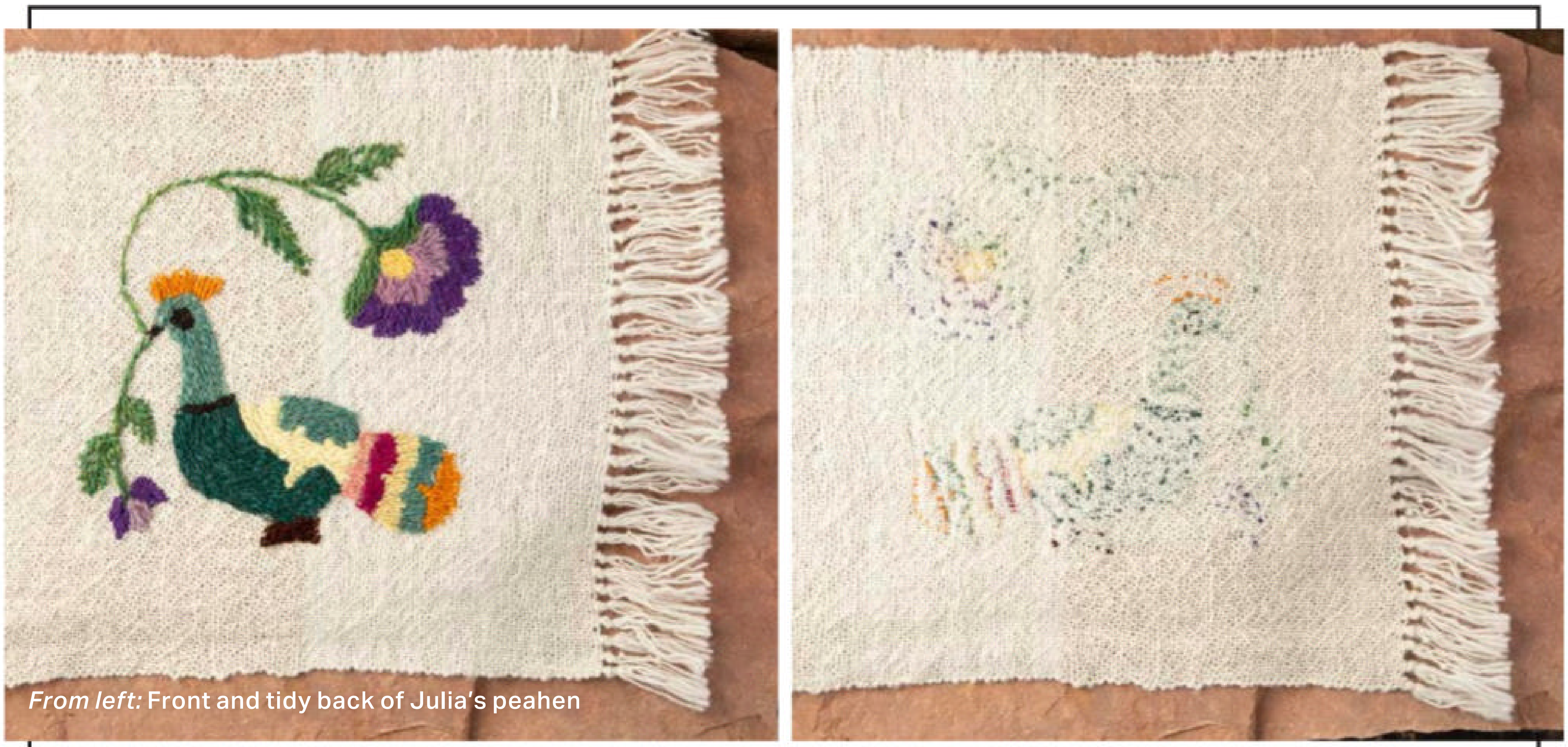
Photos by Joe Coca



First row directly on outline.
Leave some ease in yarn.
①
②
Actual size



Short stitch doesn't need central tacking stitches and is used in areas of a motif too small for long stitch. Short stitches worked close together completely cover the ground cloth. Here, Julia has worked some stitches farther apart, so you can see their placement.



From left: Front and tidy back of Julia's peahen

Julia's Tips

- Keep stitches loose as fabrics tend to tighten during stitching. Both you and your stitches should be relaxed.
- Keep tacking stitches ½" apart unless stitching a curve.
- Every tack is single and tiny. Check the back of your work frequently. The back should be a shadow of the front or look like a seed pattern.
- Only use three tacking stitches at the beginning of the design. If you run out of yarn in the middle of your work, you can begin your new thread by hiding the tail in the existing embroidery.
- The long stitches create texture and can be straight or curved.
- The back side is pretty—no knots, no carrying yarn from one design to another.

5 Repeat by starting another row right next to the first row. Each row is lying next to the other as a filler.

The number of tacking stitches you take depends on the length of the long thread. Work the long threads one above the other from bottom to top. Just before you run out of yarn, weave the end into laid yarn and cut it off. There are no knots in colcha embroidery. Don't be afraid of cutting yarn; wool fibers have a cuticle made up of tiny scales that behave like hooks, allowing the fibers to entangle and prevent raveling. Re-thread the needle and continue stitching until the breast is filled in.

Practice the long stitch by filling in the head and neck according to the diagram. Julia also worked the long stitch on the saddle. If there is an area of the motif that is too small to use the long stitch, use the short stitch (at left) to complete it.

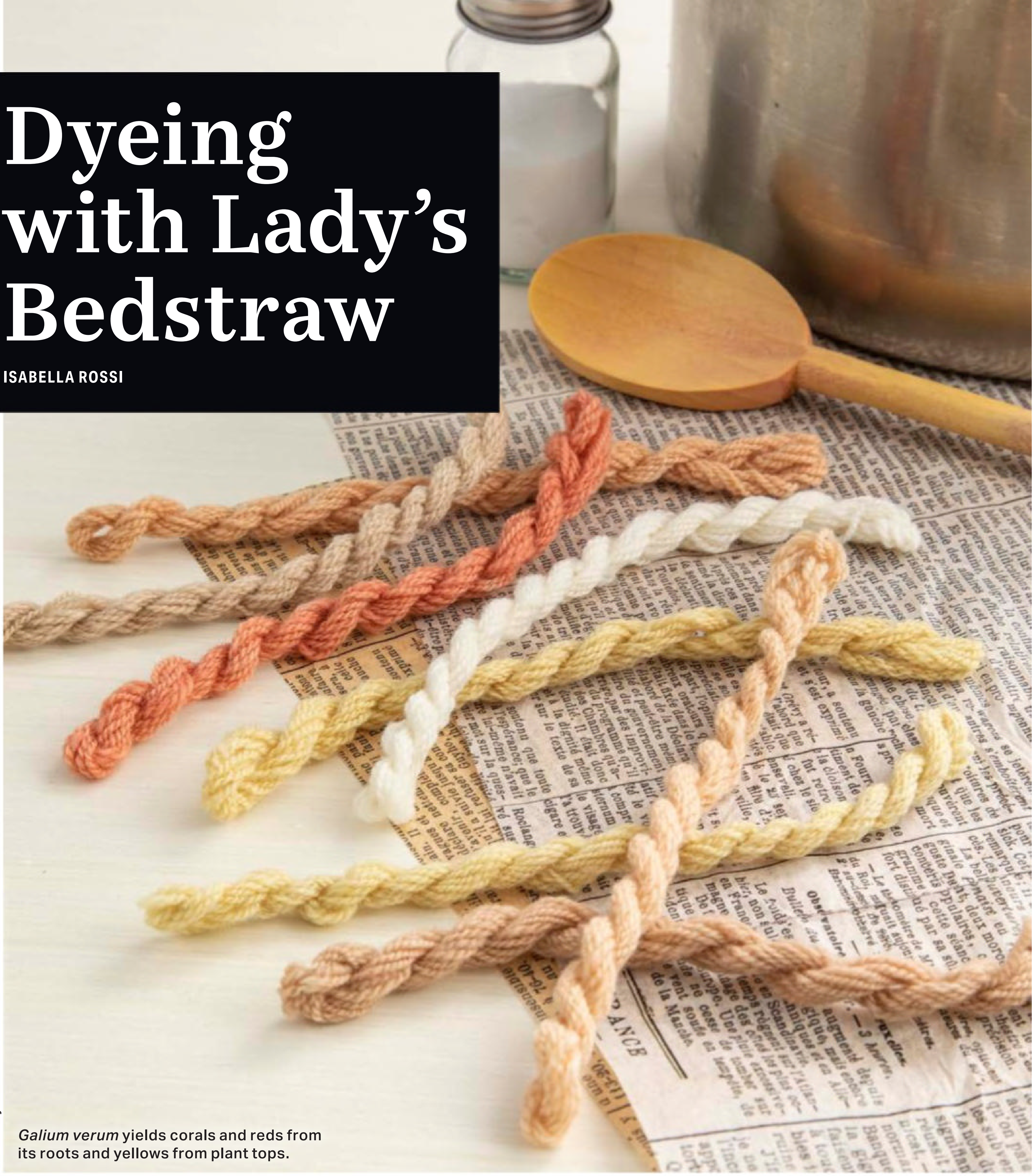
FINISHING

When your project is finished, place it face down on a fluffy towel. Block it with pins if it is crooked. Steam press with a wet cloth and let it dry in place overnight. Wool on wool stretches out nicely.

Julia R. Gomez is an internationally recognized, award-winning colcha embroidery artist and teacher from Santa Fe, New Mexico. Julia considers herself the "Johnny Appleseed" of colcha embroidery because she wants to teach anywhere and everywhere, telling the story of the Churro sheep and the strong women who came to the arid land of New Spain and brought beauty with a needle and thread.

Dyeing with Lady's Bedstraw

ISABELLA ROSSI



Galium verum yields corals and reds from its roots and yellows from plant tops.

Photos by Matt Graves unless otherwise noted

Humans love color, and historically, they have been willing to work with dye materials that are difficult to obtain to make their world more vibrant. Red is a common color found in Scottish tartans, but madder, the popular red dye plant, is not native. In the Outer Hebrides of Scotland, dyers used the local plant lady's bedstraw (*Galium verum*).

Unfortunately, it can be very difficult to know what plants were used to dye a historical textile. Everyday clothing and home goods do not survive for long in many environments, and the few textiles that do endure are not labeled with the dyes used to make them.

Nowadays, conservation scientists can use scientific equipment to uncover dye chemicals present on museum objects. However, many dye plants can produce the same dye chemical. For example, Japanese indigo and woad both contain the same dye compounds, just in different concentrations. By identifying the dye chemical and combining it with where and when the textile was dyed, conservation scientists can pinpoint dye plants. However, this process is expensive and time-consuming, so it is not done on most objects passing through the hands of conservation scientists such as myself.

To learn about dyeing traditions, scientists look at modern local dyeing methods, which may have also been used in the past, and examine the written history of the region. For example, a law was passed in 1695 in the Outer Hebrides that banned the uprooting of lady's bedstraw on the coast to prevent erosion. However, locals continued to collect the dye plant at night. This demonstrates that the plant was so popular that its collection was causing damage to the environment, but people were still determined to collect it for dyeing.[1] I was curious to see the color that these harvesters were so desperate to obtain.

IDENTIFYING AND HARVESTING

Lady's bedstraw, *Galium verum,* is a scrambling plant approximately 12 inches (30 centimeters) tall. It grows in poor soil in meadows, sand dunes, and heathlands. It is native to Eurasia but has been introduced to North America, Australia, and New Zealand. The leaves are shiny, narrow, and dark green and grow in whorls around the stem. The plant blooms from June to September in the northern hemisphere and has dense clusters of small yellow flowers.[2]

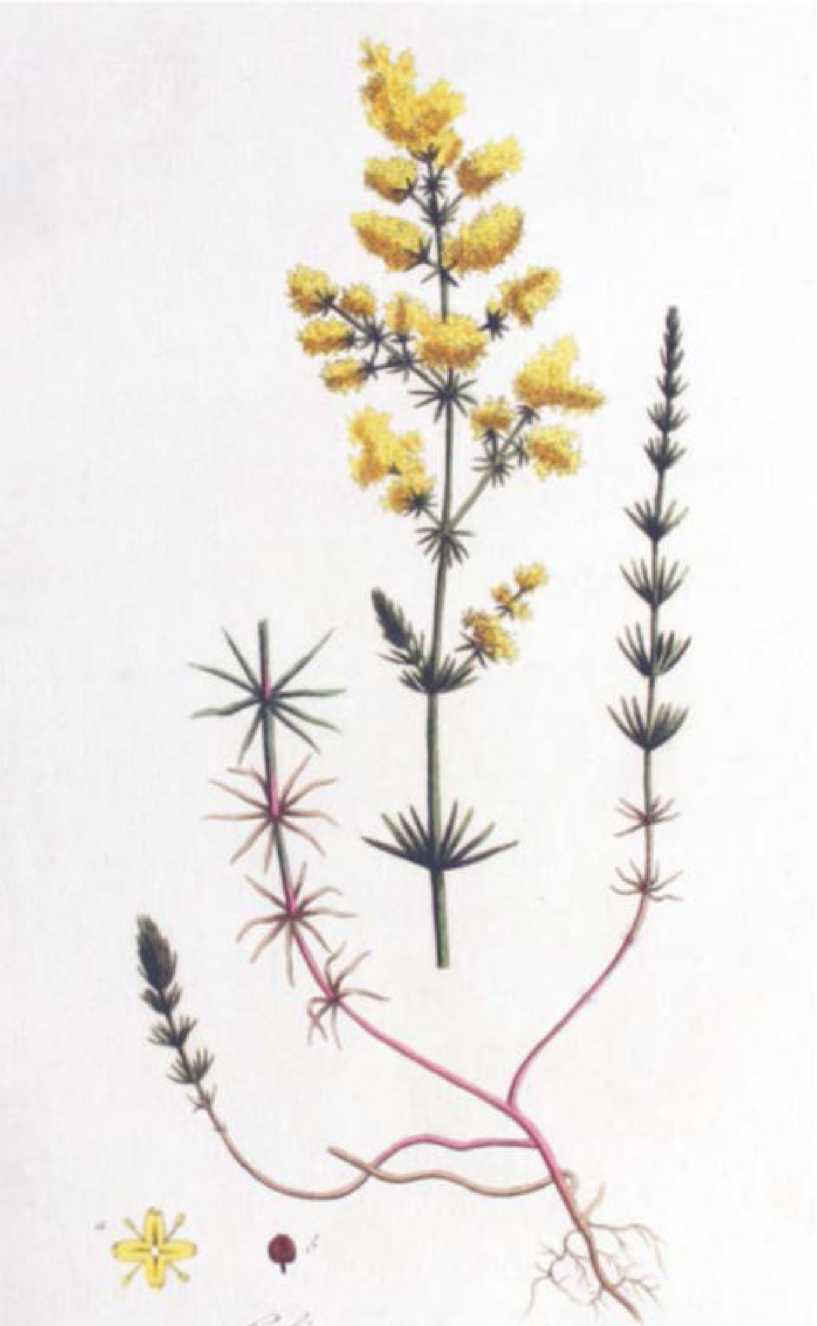
The roots are the true prize for dyers, though. They are much thinner than the roots of madder plants, but their orange-red color indicates their use. The roots have a tendency to grow horizontally under the surface, frequently popping up to form a new plant. Harvesting lady's bedstraw roots involves plenty of time with one's hands in the soil, following long root tendrils from plant to plant.

However, it is important to check the legality of foraging for wild plants in your area. You may need the landowner's permission to forage, particularly when uprooting plants. Lady's bedstraw plants can also be easily grown in your garden if wild plants are unavailable.

I began my *Galium verum* experiment by gathering roots and plants not far from where I live, near Edinburgh, Scotland. When harvesting, I started with a small hand trowel to begin unearthing the plant but soon abandoned it for my hands. Since the roots are so small and thin, it can be easy to accidentally cut them with a shovel. I kept following where the roots led, digging up the roots and plant tops as I went.

PROCESS

Many dyers have their own recipes for using lady's bedstraw, as is often the case with natural dyes. I based my samples on methods described in Jean Fraser's book *Traditional Scottish Dyes and How to Make Them.*[3] From this source, I expected the roots with an aluminum mordant to give coral, the roots with aluminum



Galium verum; illustration by J. C. Sepp and Son in *Flora Batava*, 1800[4]

Courtesy of Wageningen UR Library, Special Collections

The Madder Matter

Red madder roots (*Rubia tinctorum* and *Rubia cordifolia*), common in modern dyepots, and lady's bedstraw (*Galium verum*) are in the Rubiaceae family. To learn more about how water, temperature, and reagents can be adjusted to create a range of reds, check out Jane Woodhouse's excellent article "Getting to the Root of the Matter" in *Spin Off* Spring 2020.

mordant and iron to give plum, and the tops with an aluminum mordant to give yellow.

To see the colors yielded by the recipes as clearly as possible, I needed a bright white protein fiber. I chose Merino combed top and used a short-forward draw to create a worsted two-ply yarn. Once plied, I wound sample-size skeins that were 5 grams.

I gathered my skeins, dyestuffs, and reagents and prepared a double boiler as my dye vessel. I prefer dyeing this way because it gives greater control over the temperature and prevents the samples from boiling, which could damage the wool and dye; it's much harder to felt wool when dyeing in a double boiler. This can also save a significant amount of time because multiple samples can be dyed in the same pot. In this experiment, I dyed all three samples for each dyebath at the same time by putting the wool and dyes in glass jars within the larger pot of water.

Mordanting and Dyeing

All of the wool was mordanted with 8% by weight of alum (aluminum sulfate) and 7% by weight of cream of tartar. I dissolved these in hot water and then simmered the wool at around 185° Fahrenheit (85° Celsius) in this solution for one hour.

I used a ratio of 1:1 dyestuff to weight of dry wool for my first samples. I separated the roots and tops, chopped them into 1-inch (2.5-centimeter) segments, and soaked them in water overnight. At this point, the root solution was orange, and the top solution was brownish yellow.

The next day, I simmered the dyestuff for 30 minutes. I then passed the dyes through cheesecloth to remove the plant matter, which I retained for another bath. I separated the root dye into two jars and added a few drops of iron mordant solution into one until the color darkened. After allowing the temperature to cool slightly, I added a skein to each jar and moved them to the double boiler. I slowly raised the temperature of each jar and simmered the sample solutions for 30 minutes.

I was surprised that the baths were not the color that each dye was supposed to give. The bath from roots with aluminum mordant appeared yellow, the bath from roots with aluminum and iron mordant appeared brown, and the bath from the tops with aluminum appeared orange. However, when I removed the wool from their baths, the colors of the yarns were roughly what I was expecting. The roots with aluminum dyed the yarns a pale coral. The roots with aluminum and iron created a brownish pale coral. The tops with aluminum turned the wool a pale lemon color. I rinsed the skeins and laid them out to dry.

For my second exhaust bath, I simmered the same roots and tops for 40 minutes and then followed the same procedure. I had originally planned to do a third exhaust bath but decided against it. The lady's bedstraw gave minimal color in the second bath, so I believe it had little dye remaining. As expected, the samples from this bath were paler versions of the first.

I decided to dye one more sample to try to get a brighter color. For this attempt, I used 2:1 roots to weight of dry wool. I steeped a new batch of roots in water overnight with the wool in the jar. When I removed the skein in the morning, it was already quite a nice coral color, slightly darker than the first exhaust bath of 1:1 roots to dry wool.

I simmered the roots for 45 minutes in an attempt to get all of the color out of the plant before I removed the roots from the dyebath and added the skein of wool to the jar. This simmered for another 30 minutes, and the resulting yarn is a much brighter coral shade.

REFLECTIONS

Although lady's bedstraw is known for its ability to dye shades of red, my favorite color is the lemon yellow that the tops created in the first exhaust bath. Based on the color and the ease with which the plant tops can be collected, I can certainly see why it was used to dye cheese in the past. Overall, I was disappointed with the intensity of the colors I obtained from my initial tests with the roots. However, I am quite pleased with the brighter coral color of the 2:1 skein. For many natural dyes, a 1:1 ratio of dyestuff to wool is plenty, but my samples show that for lady's bedstraw, more roots are needed for a vibrant color.

After examining the roots, I believe it is their skin, rather than the roots themselves, that holds the dye. The skin of the roots is an orangey red, while the interior is simply white. This may explain why I did not get as bright a color as I expected with the 1:1 ratio. Most of the mass of the root does not actually contain dye.

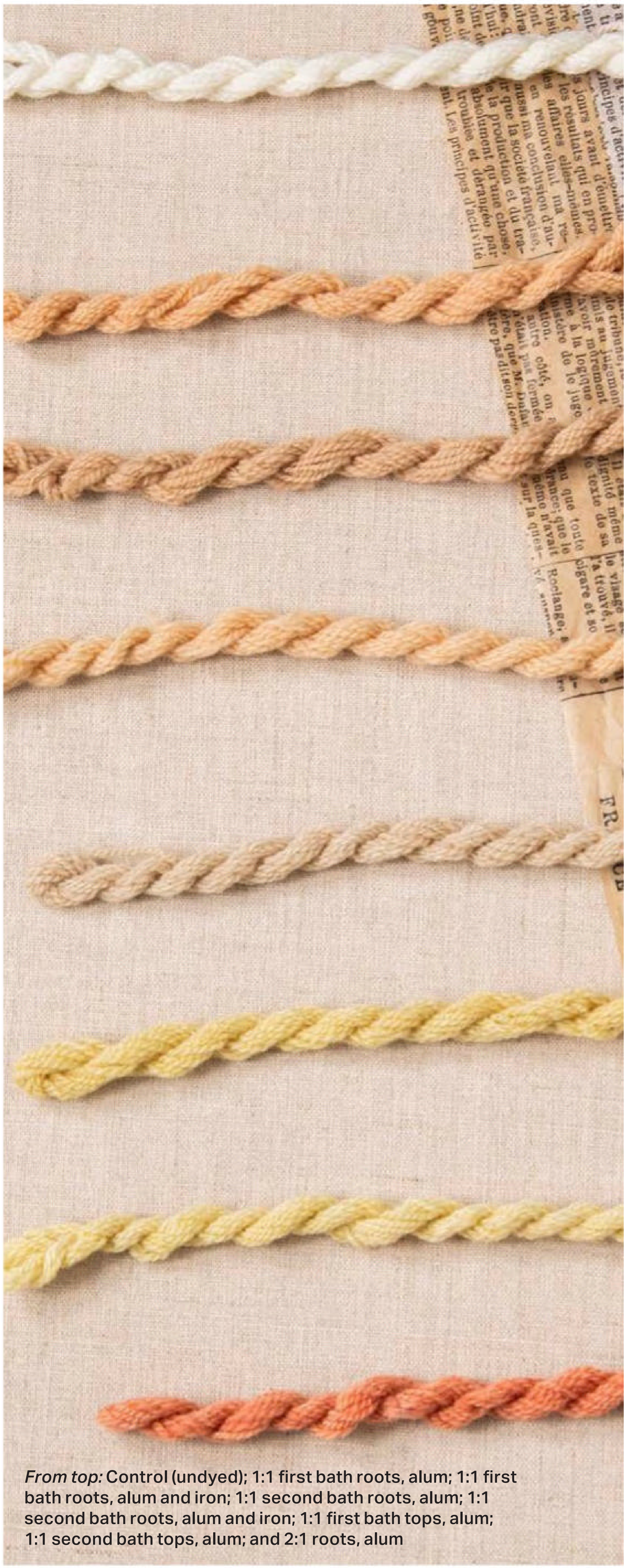
In *Traditional Scottish Dyes and How to Make Them*, Jean Fraser recommends using chrome-mordanted wool to obtain a crimson color. Is this the key to getting a bright red from lady's bedstraw? Perhaps, but unfortunately, chrome mordant is quite toxic and cannot be purchased by hobbyists in the United Kingdom where I live. I am curious to know how chrome could change the possible colors, but a mordant with a long list of dangers is enough to dampen my interest.

I have plenty more questions about dyeing with lady's bedstraw. How would altering the pH change the color? Does the season in which the plant is harvested change its dyeing ability? Can the plant be dried for future use without impacting the color? Does the age of the plant change the amount of dye present? I look forward to gathering more lady's bedstraw in the future and experimenting with the lovely yellows and corals that it creates. ●

Notes

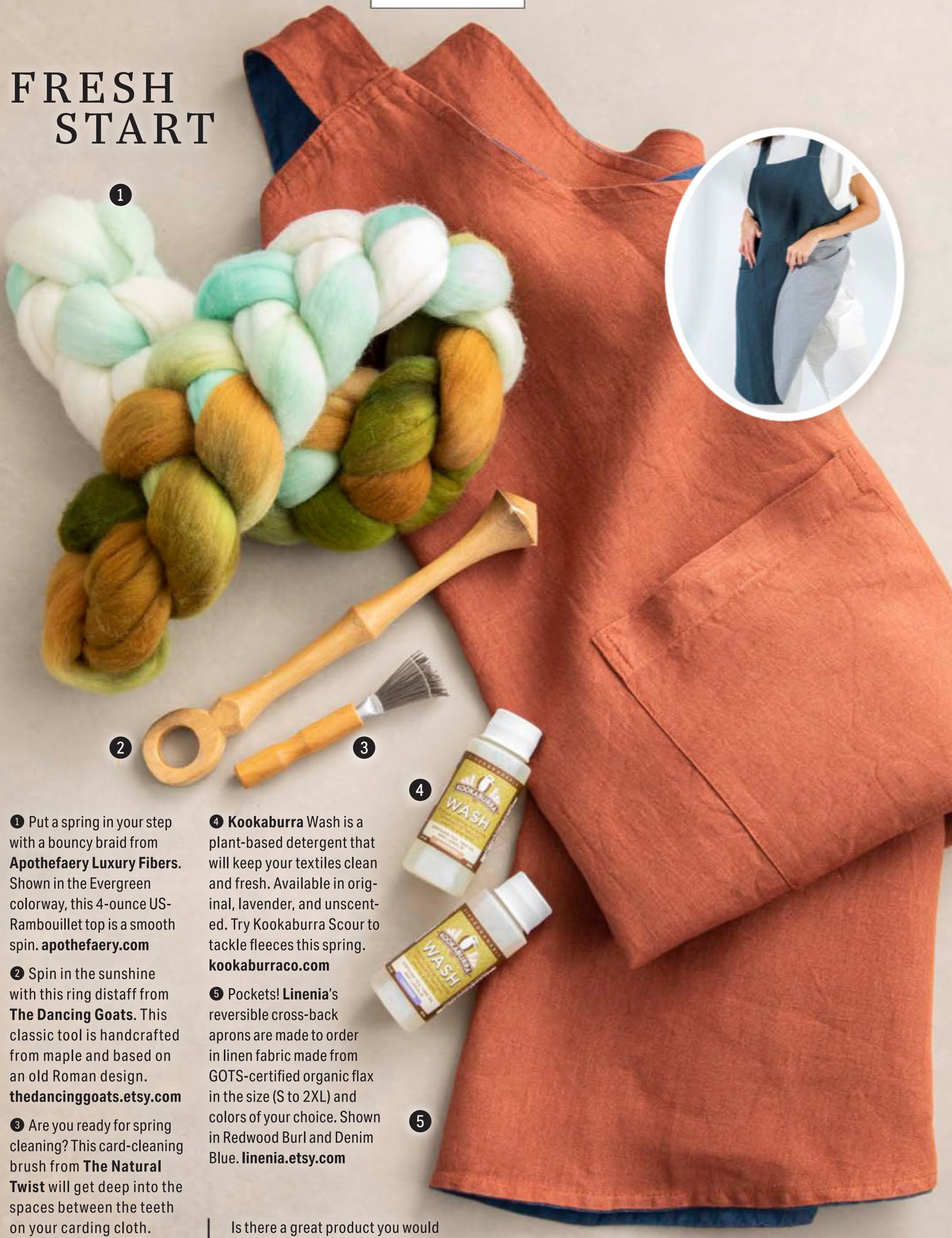
1. "Lady's Bedstraw," The Rockfield Centre, April 14, 2022, therockfieldcentre.org.uk/the-plants/2022/4/14/6.
2. "Lady's Bedstraw," The Wildlife Trusts, wildlifetrusts.org/wildlife-explorer/wildflowers/ladys-bedstraw.
3. Jean Fraser, *Traditional Scottish Dyes and How to Make Them* (Edinburgh, Scotland: Canongate, 1996), 83–84.
4. Jan Kops et al., *Flora Batava*. Vol. 1 (Amsterdam: J. C. Sepp and Son, 1800), 148.

Isabella Rossi is a textile conservator who trained at the University of Glasgow's Centre for Textile Conservation and Technical Art History. She lives in Haddington, Scotland, where she is constantly spinning, knitting, and sewing. She also writes about textile conservation and crafting on her blog, spinsterconservation.com.



From top: Control (undyed); 1:1 first bath roots, alum; 1:1 first bath roots, alum and iron; 1:1 second bath roots, alum; 1:1 second bath roots, alum and iron; 1:1 first bath tops, alum; 1:1 second bath tops, alum; and 2:1 roots, alum

FRESH START



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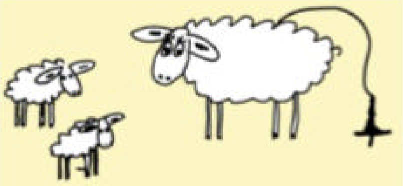

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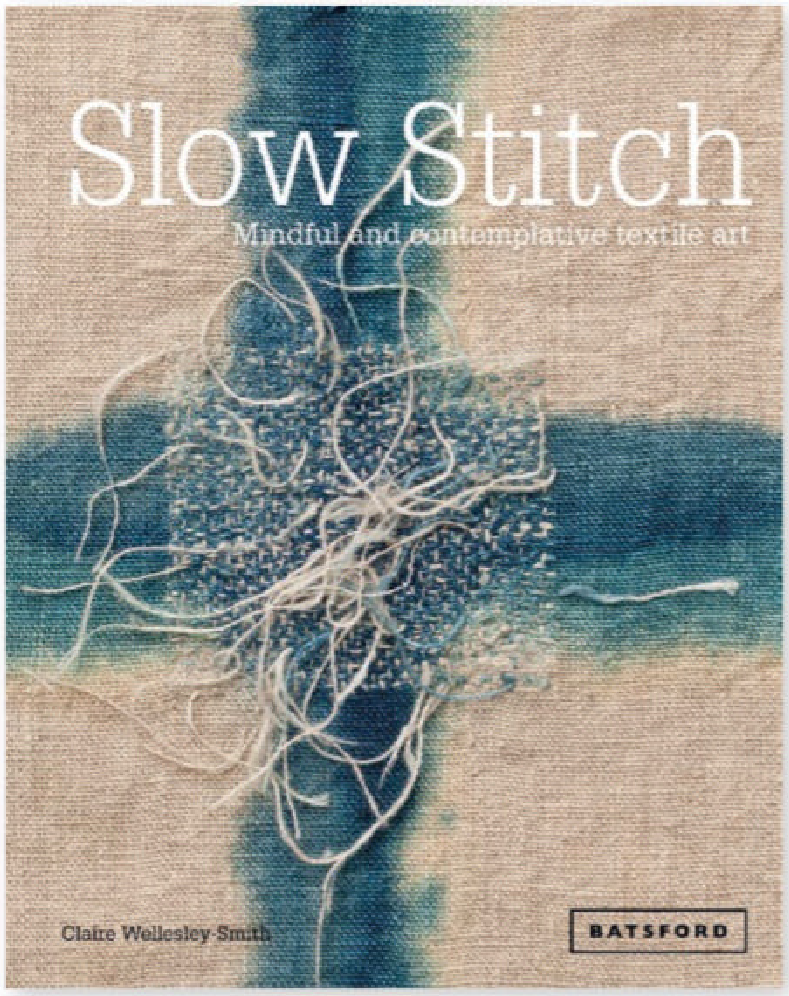
REVIEW BY MIRIAM FELTON

Slow Stitch:

Mindful and Contemplative Textile Art

by Claire Wellesley-Smith



London: Batsford Books, 2015. Hardcover, 128 pages. ISBN 9781849942997.

AS A SERIOUS MAKER, I've thought a lot about what differentiates Craft from Art when it comes to the work of our hands. The only conclusion I've come to is that the intention of the maker to create something more than just a functional piece is what makes it Art. The maker may wish to fill the piece with love for the recipient, or the maker might create the object to commemorate a specific time or place. But it's the intention that makes it Art.

Slow Stitch is a meditation on textiles and handstitching as Art. The book's foundation is a philosophy on making that grounds the work of our hands in time and place through seasonal shifts and dyeing with local plants, allowing us an opportunity to connect our handwork to intention.

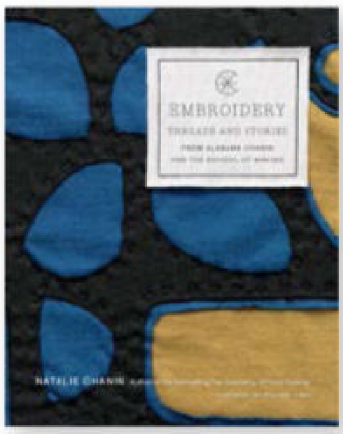
The author offers exercises to find meaning in your stitchwork and recipes for a low-stakes natural-dye method. These exercises can help you explore your own relationship with textiles and stitching. Wellesley-Smith touches on the stitching of *kantha* quilts from Bengal and *boro* stitching in Japanese culture, and she speaks about mending as a conversation with the cloth, which is beautiful to me.

Peppered throughout the book are snippets from other textile artists—their works and their thoughts on stitching slowly and deliberately. As a result of this blend of the author's words, contributors' words, and close-ups of beautiful stitchwork, this is a book that you could easily pick up, read a few pages, and set aside for the next time you need a little break for your brain. The book itself feels like a meditation in the hand, with a lightly flocked cover that invites you to caress it and beautiful color photos that feel like landscapes of stitches and fiber.

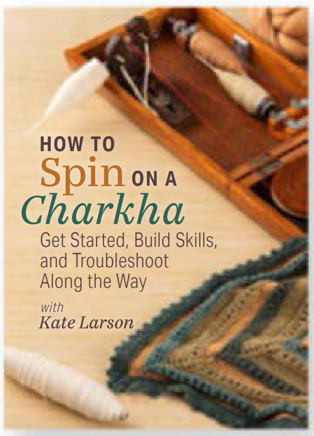
Slow Stitch offers inspiration—not only for our stitching but also for our minds. It's clear that the author has extensive experience in working with communities and stitching by hand. She is clearly passionate about the community aspect of handwork and encourages the use of thrifted or found textiles that contain their own history. By using them in our work, we add our own stories to them.

Whether stitching a coaster for our morning cuppa with naturally dyed threads, mending an old work shirt to give it new life, or creating a piece that will hang in a museum, we can all benefit from adding a little more meaning and depth to the familiar motions of stitching.

Reading List



Embroidery: *Threads and Stories from Alabama Chanin and The School of Making*
Natalie Chanin
New York: Abrams, 2022.



How to Spin on a Charkha
video course
Kate Larson
learn.longthreadmedia.com, 2022.